

=> fil reg  
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 provided by InfoChem.

STRUCTURE FILE UPDATES: 22 MAY 2006 HIGHEST RN 885262-53-3  
 DICTIONARY FILE UPDATES: 22 MAY 2006 HIGHEST RN 885262-53-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

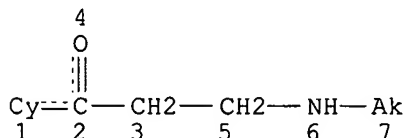
\*\*\*\*\*  
 \*  
 \* The CA roles and document type information have been removed from \*  
 \* the IDE default display format and the ED field has been added, \*  
 \* effective March 20, 2005. A new display format, IDERL, is now \*  
 \* available and contains the CA role and document type information. \*  
 \*  
 \*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
 for details.

REGISTRY includes numerically searchable data for experimental and  
 predicted properties as well as tags indicating availability of  
 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

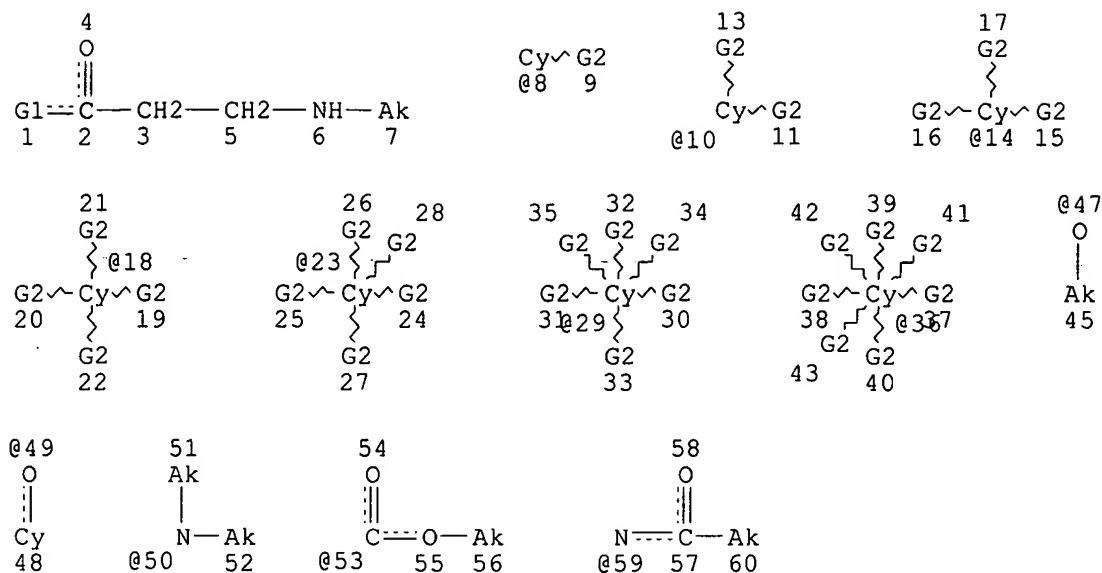
=> d sta que 126  
 L12 STR



NODE ATTRIBUTES:  
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 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
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 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
 L14 SCR 1597  
 L16 570 SEA FILE=REGISTRY CSS FUL L12 AND L14  
 L24 STR



VAR G1=CY/8/10/14/18/23/29/36

VAR G2=H/AK/47/CY/49/53/X/O/CN/NO2/59/50

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 57

STEREO ATTRIBUTES: NONE

L26 297 SEA FILE=REGISTRY SUB=L16 CSS FUL L24

100.0% PROCESSED 570 ITERATIONS ( 1 INCOMPLETE)

297 ANSWERS

SEARCH TIME: 00.00.04

=> d his

(FILE 'HOME' ENTERED AT 08:54:36 ON 23 MAY 2006)

SET COST OFF

FILE 'HCAPLUS' ENTERED AT 08:54:46 ON 23 MAY 2006

L1 1 S (WO2003-EP8514 OR DE2002-10240026)/AP,PRN  
E FABIAN/AU  
E FABIAN K/AU  
L2 24 S E3-E5  
E NIESERT/AU  
L3 15 S E7-E9  
E KRALIK/AU  
L4 30 S E33-E35,E42  
E GLUSENKAMP/AU  
L5 6 S E4,E5  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 08:56:37 ON 23 MAY 2006

L6 4 S E1-E4

L7 2 S L6 NOT (CH2O OR C6H6OS)  
 L8 3 S 27152-62-1/CRN  
 L9 6 S 667465-15-8/CRN  
 L10 3 S L9 NOT COMPD  
 L11 8 S L7,L8,L10  
 L12 STR  
 L13 1 S L12 CSS SAM  
 L14 SCR 1597  
 L15 8 S L12 AND L14 CSS SAM  
 L16 570 S L12 AND L14 CSS FUL  
 SAV TEMP L16 SHA525/A  
 L17 21 S L16 AND SC4/ES  
 L18 15 S L17 AND 1/NR  
 L19 6 S L17 NOT L18  
 SEL RN 4-6  
 L20 3 S L19 NOT E5-E7  
 L21 18 S L18,L20  
 L22 239 S L16 AND 46.150.18/RID  
 L23 169 S L22 AND 1/NR  
 L24 STR L12  
 L25 10 S L24 CSS SAM SUB=L16  
 L26 297 S L24 CSS FUL SUB=L16  
 SAV TEMP L26 SHA525A/A  
 L27 296 S L26/COM  
 L28 19 S L17 AND L27  
 L29 1 S L28 NOT L21  
 L30 18 S L28 NOT L29  
 L31 18 S L21,L30  
 L32 128 S L27 AND 46.150.18/RID  
 L33 112 S L32 AND 1/NR  
 L34 111 S L33 NOT MAN/CI  
 L35 129 S L31,L34  
 L36 15 S L32 NOT L35  
 L37 14 S L36 NOT MAN/CI  
 L38 143 S L35,L37  
 L39 STR L24  
 L40 4 S L39 CSS SAM SUB=L27  
 L41 158 S L39 CSS FUL SUB=L27  
 SAV TEMP L41 SHA525B/A  
 L42 272 S L38,L41  
 SAV TEMP L42 SHA525C/A  
 L43 25 S L26 NOT L42  
 L44 264 S L42 NOT L11

FILE 'HCAOLD' ENTERED AT 09:16:27 ON 23 MAY 2006

L45 3 S L11  
 SEL AN  
 EDIT E8-E10 /AN /OREF

FILE 'HCAPLUS' ENTERED AT 09:16:55 ON 23 MAY 2006

L46 6 S E8-E10  
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 L49 36 S L47,L48  
 L50 29 S L49 AND (PY<=2002 OR PRY<=2002 OR AY<=2002)  
 L51 2 S L49 AND L1-L5  
 L52 2 S L49 AND MERCK?/PA,CS  
 L53 18 S L11(L)PREP+NT/RL  
 L54 12 S L50 AND L53  
 L55 13 S L51,L52,L54

L56 16 S L50 NOT L55  
L57 29 S L55,L56

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=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 09:20:39 ON 23 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 23 May 2006 VOL 144 ISS 22

FILE LAST UPDATED: 22 May 2006 (20060522/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l57 bib abs hitstr retable tot

L57 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:308427 HCAPLUS

DN 140:321232

TI Preparation of optically active 3-amino-1-(2-thienyl)-1-propanols via reduction of 3-amino-1-(2-thienyl)-1-propanones using a hydrogen donor in the presence of a metal catalyst, an optically active nitrogen-containing ligand and optionally a base.

IN Fuchs, Rudolf; Michel, Dominique; Brieden, Walter

PA Lonza A.-G., Switz.

SO PCT Int. Appl., 25 pp.

CODEN: PIXXD2

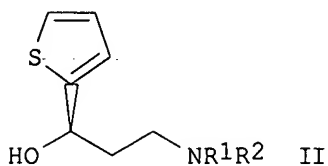
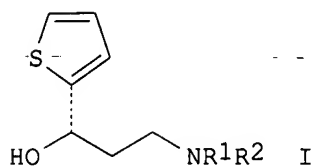
DT Patent

LA English

FAN.CNT 1

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	WO 2004031168	A3	20040826		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

AU 2003276066 A1 20040423 AU 2003-276066 20031007 <--  
 PRAI EP 2002-22540 A 20021007 <--  
 WO 2003-EP11073 W 20031007  
 OS CASREACT 140:321232; MARPAT 140:321232  
 GI



AB Title compds. (I, II; R<sub>1</sub>, R<sub>2</sub> = H, alkyl, cycloalkyl, aralkyl, aryl), were prepared by reducing the corresponding 3-amino-1-(2-thienyl)-1-propanones using a hydrogen donor in the presence of a metal catalyst, an optically active N-containing ligand and optionally a base. Thus, 3-N-methylamino-1-(2-thienyl)-1-propanone hydrochloride (preparation given) and NaOH were stirred 1 h in Me<sub>2</sub>CHOH; a prestirred solution of (1S,2R)-cis-1-amino-2-indanol and (p-cymene)ruthenium(II)chloride dimer in Me<sub>2</sub>CHOH was added followed by stirring for 4 h at 20° to give 39% (S)-N-methylamino-1-(2-thienyl)-1-propanol in 70% enantiomeric excess.

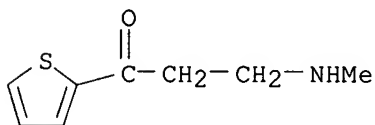
IT 645411-16-1P, 3-N-Methylamino-1-(2-thienyl)-1-propanone hydrochloride

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of optically active aminothierylpropanols via reduction of aminothierylpropanones using a hydrogen donor in the presence of a metal catalyst, an optically active N-containing ligand and a base)

RN 645411-16-1 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-(2-thienyl)-, hydrochloride (9CI) (CA INDEX NAME)



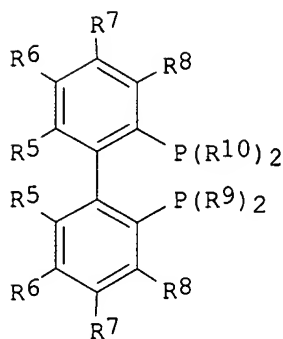
● HCl

L57 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:203795 HCAPLUS  
 DN 140:253262  
 TI Method for the preparation amino alcohols via the enantioselective hydrogenation of amino ketones  
 IN Kralik, Joachim; Fabian, Kai; Muermann, Christoph; Schweickert, Norbert  
 PA Merck Patent G.m.b.H., Germany  
 SO PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DT Patent

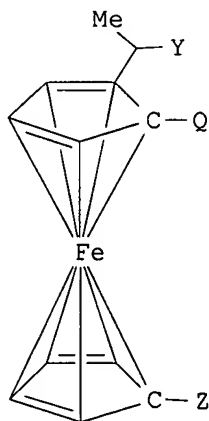
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2004020389	A1	20040311	WO 2003-EP8513	20030801	
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	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	CA 2496883	AA	20040311	CA 2003-2496883	20030801	
	AU 2003260347	A1	20040319	AU 2003-260347	20030801	
	EP 1532100	A1	20050525	EP 2003-790842	20030801	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK		
	BR 2003013795	A	20050712	BR 2003-13795	20030801	
	CN 1678562	A	20051005	CN 2003-820304	20030801	
	JP 2005536556	T2	20051202	JP 2004-531845	20030801	
	US 2005261514	A1	20051124	US 2005-525821	20050225	
	ZA 2005002458	A	20051010	ZA 2005-2458	20050324	
PRAI	DE 2002-10240025	A	20020827			
	WO 2003-EP8513	W	20030801			
OS	CASREACT 140:253262; MARPAT 140:253262					
GI						



I

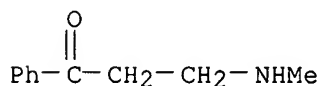


II

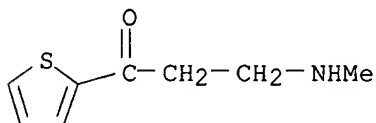
AB The invention relates to methods for the enantioselective production of amino alcs.,  $R_1CH(OH)CH_2(CH_2)_nNHR_2$  [ $R_1$  = (un)substituted, (un)saturated or aromatic carbocycle or heterocycle (optionally substituted with  $R_3$ ,  $R_4$ );  $R_2$  = H, C1-20-alkyl;  $R_3$ ,  $R_4$  = H, C1-20-alkyl, C1-20-alkoxy, aryl, aryloxy,  $CO_2R_2$ , F, Cl, Br, OH, CN,  $NO_2$ ,  $N(R_2)_2$ ,  $NHCOR_2$ ;  $n$  = 0 - 3], via the enantioselective hydrogenation of amino ketones,  $R_1COCH_2(CH_2)_nNHR_2$  and is characterized by

hydrogenation in the presence of a non-racemic catalyst containing a chiral diphosphine ligand I [R5, R6, R7, R8 = H, C1-20-alkyl, C1-20-alkoxy, aryl, aryloxy, F, Cl, Br, N(R2)2, NHCOR2; R5R6, R6R7, R7R8 = (CH2)4, CH:CHCH:CH, etc.; R9, R10 = C6H4(R11)m, 2-furyl, cyclohexyl; R11 = H, C1-20-alkyl, C1-20-alkoxy, aryl, aryloxy, SO3Na, COR12, F, Cl, N(R12)2, NHCOR12; R12 = H, C1-20-alkyl; m = 0 - 3] or II [Q = PPh2, P(cyclohexyl)2, P[C6H3(CF3)2-3,5], P(4-methoxy-3,5-dimethylphenyl)2, P(CMe3)2; Y = OH, P(cyclohexyl)2, P(C6H3Me2-3,5)2, P(CMe3)2; Z = H, PPh2; Ph = unsubstituted Ph, C6H4Me-2, C6H4Me-3, C6H4Me-4, C6H3Me2]. Thus, (S)-N-methyl-3-hydroxy-3-(2-thienyl)propanamine was prepared with 92.8% e.e. from 3-(methylamino)-1-(2-thienyl)-1-propanone via asym. hydrogenation in MeOH/PhMe containing catalytic bis(1,5-cyclooctadiene)dirhodium(I) dichloride and (S)-(-)-2,2'-bis[di(p-tolyl)phosphine]-1,1'-binaphthyl.

IT 27152-62-1, 3-(Methylamino)-1-phenyl-1-propanone  
 667465-15-8, 3-(Methylamino)-1-(2-thienyl)-1-propanone  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (enantioselective hydrogenation of; preparation amino alcs. via the  
 enantioselective hydrogenation of amino ketones with chiral diphosphine  
 ligands)  
 RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)



RN 667465-15-8 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-(2-thienyl)- (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Helmchen, G	1995	E21d	3955	HOUBEN-WEYL METHODS	
Kitamura, M	1998	110	629	J AM CHEM SOC	

L57 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:198214 HCAPLUS

DN 140:235592

TI Process for the preparation of monoalkylaminoethyl aryl ketones from bis(arylcarbonylethyl)alkylamines.

PA Merck Patent G.m.b.H., Germany

SO Ger. Offen., 7 pp.

CODEN: GWXXBX

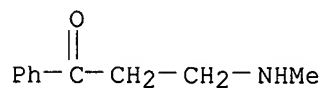
DT Patent

LA German

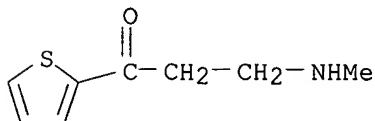
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10240026	A1	20040311	DE 2002-10240026	20020827 <--

CA 2497028 AA 20040311 CA 2003-2497028 20030801 <--  
 WO 2004020391 A1 20040311 WO 2003-EP8514 20030801 <--  
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 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,  
 PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
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 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2003260348 A1 20040319 AU 2003-260348 20030801 <--  
 EP 1532101 A1 20050525 EP 2003-790843 20030801 <--  
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 BR 2003013796 A 20050927 BR 2003-13796 20030801 <--  
 CN 1678564 A 20051005 CN 2003-820305 20030801 <--  
 JP 2005536557 T2 20051202 JP 2004-531846 20030801 <--  
 PRAI DE 2002-10240026 A 20020827 <--  
 WO 2003-EP8514 W 20030801 <--  
 OS CASREACT 140:235592; MARPAT 140:235592  
 AB R1COCH2CH2NHR2 [R1 = (substituted) (unsatd.) residue, aromatic heterocyclyl;  
 R2 = alkyl], were prepared by reaction of R1COCH2CH2NR2CH2CH2COR1 (variables  
 as above) with R2NH2.  
 IT 27152-62-1P 667465-15-8P  
 RL: IMF (Industrial manufacture); SPN (Synthetic  
 preparation); PREP (Preparation)  
 (preparation of monoalkylaminoethyl aryl ketones from  
 bis(arylcarbonylethyl)alkylamines)  
 RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)



RN 667465-15-8 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-(2-thienyl)- (9CI) (CA INDEX NAME)

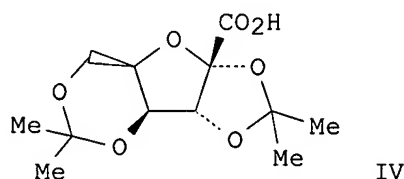
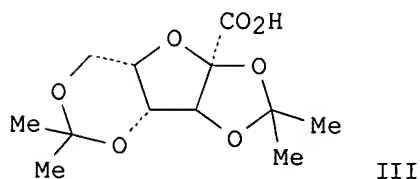
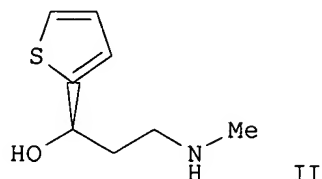
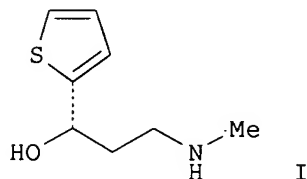


L57 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:41488 HCAPLUS  
 DN 140:93915  
 TI Process for the preparation of optically active 3-N-methylamino-1-(2-  
 thienyl)-1-propanol  
 IN Michel, Dominique  
 PA Lonza A.-G., Switz.  
 SO PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2



DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004005307	A1	20040115	WO 2003-EP7312	20030708 <--
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PRAI	EP 2002-15161	A	20020709	<--	
	WO 2003-EP7312	W	20030708		
OS	CASREACT 140:93915; MARPAT 140:93915				
GI					



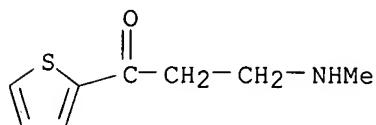
AB Enantiomerically enriched (S)-(-)-3-N-methylamino-1-(2-thienyl)-1-propanol (I) or (R)-(+)-3-N-methylamino-1-(2-thienyl)-1-propanol (II) or mirror image are prepared by (i) treating an enantiomeric mixture of the amines I and II with (-)-2,3:4,6-di-O-isopropylidene-2-keto-L-gulonic acid (III) or (+)-2,3:4,6-di-O-isopropylidene-2-keto-D-gulonic acid (IV), (ii) crystallizing the obtained diastereomerically enriched salts from the reaction mixture obtained in step (i), (iii) optionally recrystg. said diastereomerically enriched salts I.III or II.IV, and (iv) treating the diastereomerically enriched salts II.III or II.IV obtained in step (ii) or step (iii) with a base to liberate the enantiomerically enriched amines I or II.

IT 645411-16-1P, 3-(N-Methylamino)-1-(2-thienyl)-1-propanone hydrochloride

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of optically active N-methylamino(thienyl)propanol by optical resolution via formation of diastereomer salts with 2,3:4,6-di-O-isopropylidene-2-ketogulonic acid)

RN 645411-16-1 HCAPLUS  
 CN 1-Propanone, 3-(methyamino)-1-(2-thienyl)-, hydrochloride (9CI) (CA  
 INDEX NAME)



● HCl

# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Berglund, R	1994			US 5362886 A	HCAPLUS
Fitzi, R	1988	44	5277	TETRAHEDRON	HCAPLUS
Robertson, D	1991			US 5023269 A	HCAPLUS
William Den, H	1972			US 3682925 A	HCAPLUS

L57 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:41430 HCAPLUS

DN 140:93914

TI Process for the preparation of N-monosubstituted  $\beta$ -amino alcohols

IN Michel, Dominique

PA Lonza A.-G., Switz.

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004005239	A1	20040115	WO 2003-EP7411	20030709 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491472	AA	20040115	CA 2003-2491472	20030709 <--
AU 2003250924	A1	20040123	AU 2003-250924	20030709 <--
BR 2003012651	A	20050426	BR 2003-12651	20030709 <--
EP 1539673	A1	20050615	EP 2003-762669	20030709 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1665773	A	20050907	CN 2003-816223	20030709 <--
JP 2005532383	T2	20051027	JP 2004-518758	20030709 <--
NO 2005000079	A	20050311	NO 2005-79	20050106 <--
US 2005256318	A1	20051117	US 2005-520362	20050418
PRAI EP 2002-15229	A	20020709	<--	

WO 2003-EP7411 W 20030709

OS CASREACT 140:93914; MARPAT 140:93914

AB The invention relates to a process for the synthesis of N-monosubstituted  $\beta$ -amino alcs. of formula  $\text{HOCH(R1)CH}_2\text{CH}_2\text{NHR}_2$  and/or an addition salt of a proton acid (wherein R1 and R2 independently represent alkyl, cycloalkyl, aryl or aralkyl, each being optionally further substituted with alkyl, alkoxy and/or halogen) via direct preparation of N-monosubstituted  $\beta$ -amino ketones of  $\text{R1COCH}_2\text{CH}_2\text{NHR}_2$  and its addition salts of proton acids (wherein R1 and R2 are as defined above). Thus, 2-acetylthiophene 25.5, methylamine hydrochloride 14.9, paraformaldehyde 8.2, concentrated HCl 1.0 g, 100 mL

ethanol

were heated in an autoclave at  $110^\circ$  and a total pressure of 2-2.5 bar for 9 h, followed by removing 50 mL ethanol in vacuo and addition of 200 mL Et acetate under vigorous stirring, and filtration to give 71% 3-(methylamino)-1-(thiophen-2-yl)propan-1-one hydrochloride (I). To a mixture of 10.3 g I and 35 mL ethanol at  $4^\circ$  sodium hydroxide (4.0 g of a 50% aqueous solution) was added in about 5 min and afterwards, 0.95 g neat sodium borohydride in several portions in about 30 min. The resulting suspension was stirred for 4 h at the same temperature, treated dropwise with 10.0 mL acetone in 5 min, stirred for 10 addnl. minutes, treated with 20 mL  $\text{H}_2\text{O}$ , concentrated about 5 times under vacuum, and extracted with tert-Bu Me

ether

(2 x 20 mL). The collected organic phases were finally concentrated under

vacuum

affording an orange oil which crystallized spontaneously after a few hours to give 3-(methylamino)-1-(thiophen-2-yl)propan-1-ol as an orange solid (7.2 g, 84 % yield).

IT 2538-50-3P, 3-(Methylamino)-1-phenylpropan-1-one hydrochloride

645411-16-1P, 3-(Methylamino)-1-(thiophen-2-yl)propan-1-one hydrochloride

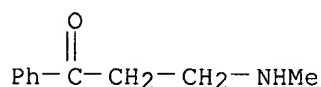
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(intermediate; process for preparation of N-monosubstituted  $\beta$ -amino alcs. by reduction of N-monosubstituted  $\beta$ -amino ketones)

RN 2538-50-3 HCAPLUS

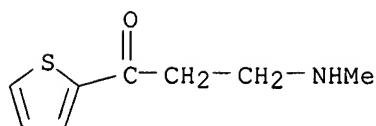
CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 645411-16-1 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-(2-thienyl)-, hydrochloride (9CI) (CA INDEX NAME)



● HC1

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Agarwal, S	1980	57	1240	J INDIAN CHEM SOC	HCAPLUS
Ardashev, B	1967	1	7	KHIM GETEROTSIKL SOE	HCAPLUS
Blicke, F	1942	I	303	ORGANIC REACTIONS	
Denis, G	1961	4	426	IZVEST VYSSHIKH UCHE	HCAPLUS
Kiyoshi, M	1982	94	937	ANGEWANDTE CHEMIE	
Landi-Vittory, R	1965	18	109	FARMACO (PAVIA)	HCAPLUS
Lewis, W	1958	47	77	JOURNAL OF THE AMERI	
Lilly Co Eli	1991			EP 0457559 A	HCAPLUS
Lilly Co Eli	1995			EP 0650965 A	HCAPLUS
Nobles, L	1958	67	77	J AM PHARM ASSOC, SC	HCAPLUS
Ruhrchemie Ag	1982			EP 0046288 A	HCAPLUS
Saakyan, A	1984	37	261	ARM KHIM ZH	HCAPLUS
Saldabols, N	1962	2	309	LATVIJAS PSR ZINATNU	
Tilak, B	1968	6	422	INDIAN J CHEM	HCAPLUS
Xu, X	1984	42	688	HUAXUE XUEBAO	HCAPLUS

L57 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:283018 HCAPLUS

DN 137:78622

TI Oxidative reactions of azines. 9. Cascade and stage oxidation of 1,4-disubstituted 1,2,3,6-tetrahydropyridines by potassium permanganate

AU Soldatenkov, A. T.; Temesgen, A. V.; Bekro, I. A.

CS Russian Peoples Friendship University, Moscow, 117193, Russia

SO Chemistry of Heterocyclic Compounds (New York, NY, United States)(Translation of Khimiya Geterotsiklicheskikh Soedinenii) (2001), 37(10), 1216-1222

CODEN: CHCCAL; ISSN: 0009-3122

PB Kluwer Academic/Consultants Bureau

DT Journal

LA English

OS CASREACT 137:78622

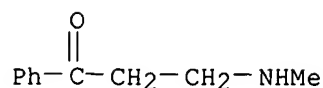
AB A general scheme was developed for the cascade and stage oxidation of 1,4-disubstituted 1,2,3,6-tetrahydropyridines by potassium permanganate, based on the successive oxidation of the allylic triad of carbon atoms in the piperidine ring. In the case of 4-aryltetrahydropyridines 2-oxotetrahydropyridines are formed initially. 3,4-Dihydroxypiperidin-2-ones and finally 1-aminoalkan-3-ones are then formed. The oxidation of 4-methyl-substituted tetrahydropyridines to the analogous 1-aminoalkanones begins differently - with 3,4-dihydroxylation followed by lactamization of the piperidinediols.

IT 27152-62-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(cascade and stage oxidation of 1,4-disubstituted 1,2,3,6-tetrahydropyridines by potassium permanganate)

RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methyamino)-1-phenyl- (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bekro, I	1996		1372	Khim Geterotsikl Soe	HCAPLUS
Korshunov, S	1966	35	2255	Usp Khim	HCAPLUS
Maksimova, T	1980		783	Khim Geterotsikl Soe	HCAPLUS
Shinohara, T	1997	45	813	Chem Pharm Bull	HCAPLUS
Soldatenkov, A	1996		222	Khim Geterotsikl Soe	HCAPLUS
Soldatenkov, A	1997		653	Khim Geterotsikl Soe	
Soldatenkov, A	2000		1661	Khim Geterotsikl Soe	
Soldatenkov, A	2001		916	Khim Geterotsikl Soe	
Soldatenkov, A	1997		243	Mendeleev Commun	HCAPLUS
Soldatenkov, A	1998		137	Mendeleev Commun	HCAPLUS
Soldatenkov, A	1998		193	Mendeleev Commun	HCAPLUS
Soldatenkov, A	1997		2020	Ser Khim	

L57 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:683252 HCAPLUS

DN 134:21369

TI Identification and Comparison of Impurities in Fluoxetine Hydrochloride  
 Synthesized by Seven Different Routes

AU Wirth, David D.; Miller, Marybeth S.; Boini, Sathish K.; Koenig, Thomas M.

CS Lilly Research Laboratories, Eli Lilly and Co., Lafayette, IN, 47909-9201,  
 USA

SO Organic Process Research & Development (2000), 4(6), 513-519

CODEN: OPRDFK; ISSN: 1083-6160

PB American Chemical Society

DT Journal

LA English

AB Fluoxetine-HCl was prepared by seven different synthetic routes, all  
 previously reported. The major impurities in each route were identified  
 by GC/MS, HPLC/MS, and gradient HPLC anal. Impurities were classified as  
 being derived from impurities in 4-chlorobenzotrifluoride, those arising  
 during the SNAr reaction of this compound and 3-methylamino-1-  
 phenylpropanol, and those arising during the synthesis of this alc.  
 Fifteen impurities belonging to the latter two categories were identified,  
 and their structures were confirmed by synthesis of authentic material for  
 most of the compds. It was found that a variety of anal. tools was needed  
 for complete characterization of the impurity profile of fluoxetine HCl  
 and that purification of the intermediate and recrystn. of the drug itself are  
 highly effective in minimizing the levels of the impurities.

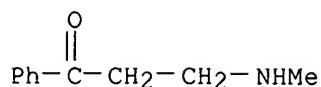
IT 27152-62-1P

RL: BYP (Byproduct); PREP (Preparation)

(impurities in fluoxetine hydrochloride synthesized by seven different  
 routes)

RN 27152-62-1 HCAPLUS

CN 1-Propanone, 3-(methyamino)-1-phenyl- (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Againe, C	1994			WO 9400416	HCAPLUS
Anon	1996	61	FR371	Guideline for Indust	
Anon	1999	24	738	U S Pharmacopeia	
Corey, E	1989	39	5207	Tetrahedron Lett	
Crnic, Z	1997			US 5618968	HCAPLUS
Fuller, R	1991	11	17	Med Res Rev	HCAPLUS
Jakobsen, P	1991			US 5019592	HCAPLUS
Kairisalo, P	1992			US 5166437	HCAPLUS
Koenig, T	1994	35	1339	Tetrahedron Lett	HCAPLUS
Kuehne, M	1977	42	2082	J Org Chem	HCAPLUS
Magnone, G	1990			EP 380924	HCAPLUS
Maryanoff, B	1985	107	21726	J Am Chem Soc	
McCormick, J	1980	45	2566	J Org Chem	HCAPLUS
Molloy, B	1982			US 4314081	HCAPLUS
Parli, C	1974	33	560	Fed Proc	
Perrine, D	1998	75	1266	J Chem Educ	HCAPLUS
Reiter, J	1988			WO 9811054	HCAPLUS
Robertson, D	1988	31	1412	J Med Chem	HCAPLUS
Sakuraba, S	1995	43	748	Chem Pharm Bull	HCAPLUS
Schwartz, E	1993			US 5225585	HCAPLUS
Theriot, K	1998			US 5760243	HCAPLUS
Wirth, D	1997	46	511	Chromatographia	HCAPLUS
Wirth, D	1997	1	55	Org Process Res Dev	HCAPLUS

L57 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:26204 HCAPLUS

DN 128:132529

TI Screening methods for impurities in multi-sourced fluoxetine hydrochloride drug substances and formulations

AU Wirth, D. D.; Olsen, B. A.; Hallenbeck, D. K.; Lake, M. E.; Gregg, S. M.; Perry, F. M.

CS Lilly Research Laboratories, Eli Lilly Co., Lafayette, IN, 47902, USA

SO Chromatographia (1997), 46(9/10), 511-523

CODEN: CHRGB7; ISSN: 0009-5893

PB Friedrich Vieweg &amp; Sohn Verlagsgesellschaft mbH

DT Journal

LA English

AB Gradient HPLC and gas chromatog. were applied as screening methods for determination of impurities in fluoxetine HCl drug substances and formulated products from multiple sources. NMR spectroscopy was also used for identification of excipients and some residual solvents. Thirty potential impurities and excipients were investigated. Several impurities were observed in generic products using gradient HPLC that were not detected with isocratic pharmacopeial methods for fluoxetine HCl. Anal. of drug substance samples and capsule formulations from many different suppliers showed a wide variation in quality which, in many cases, would go undetected using isocratic methods. The quality of the innovator's product and some generic samples was high, but many generic samples contained high levels of impurities. A new impurity, N-benzyl fluoxetine, was observed in some generic samples at levels as high as 0.9%. The gradient

HPLC method was also used for stability studies and established that generic capsules formulated with lactose were less stable under accelerated conditions than those formulated without lactose.

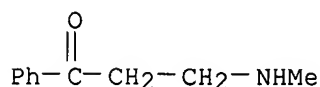
IT **27152-62-1P**

RL: ANT (Analyte); **BYP (Byproduct)**; FMU (Formation, unclassified); ANST (Analytical study); FORM (Formation, nonpreparative); **PREP (Preparation)**

(screening methods for impurities in fluoxetine HCl drug substances and formulations)

RN 27152-62-1 HCAPLUS

CN 1-Propanone, 3-(methyamino)-1-phenyl- (9CI) (CA INDEX NAME)



L57 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:684913 HCAPLUS

DN 127:283475

TI TLC examination of related substances in fluoxetine hydrochloride

AU Gao, Damin; Wang, Aimin

CS Shanghai Institute of Pharmaceutical Industry, Shanghai, 200437, Peop. Rep. China

SO Zhongguo Yiyao Gongye Zazhi (1997), 28(4), 175-177

CODEN: ZYGZEA; ISSN: 1001-8255

PB Zhongguo Yiyao Gongye Zazhi Bianjibu

DT Journal

LA Chinese

AB A thin layer chromatog. method to examine the related substances ( $\omega$ -methyamino-phenylpropanone, N-methyl-3-hydroxy-3-phenylpropane, etc) from the synthetic process of fluoxetine hydrochloride was established.

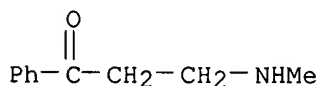
IT **27152-62-1**

RL: ANT (Analyte); ANST (Analytical study)

(determination of fluoxetine impurities by TLC)

RN 27152-62-1 HCAPLUS

CN 1-Propanone, 3-(methyamino)-1-phenyl- (9CI) (CA INDEX NAME)



L57 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:741631 HCAPLUS

DN 123:338636

TI Asymmetric reactions catalyzed by chiral metal complexes. LXVI. Efficient asymmetric hydrogenation of  $\beta$ - and  $\gamma$ -amino ketone derivatives leading to practical syntheses of fluoxetine and eprozinol

AU Sakuraba, Shunji; Achiwa, Kazuo

CS School Pharmaceutical Sciences, University Shizuoka, Shizuoka, 422, Japan

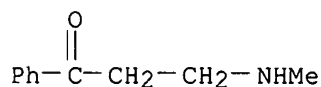
SO Chemical & Pharmaceutical Bulletin (1995), 43(5), 748-53

CODEN: CPBTAL; ISSN: 0009-2363

PB Pharmaceutical Society of Japan

DT Journal

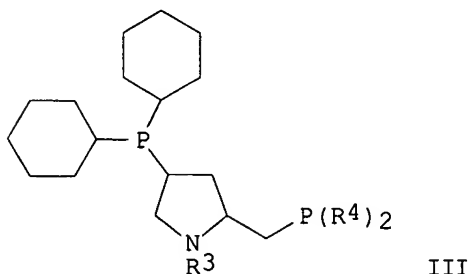
LA English  
 OS CASREACT 123:338636  
 AB N-(methylcarbamoyl)-4-(dicyclohexylphosphino)-2-  
 [(diphenylphosphino)methyl]pyrrolidine and N-(tert-butoxycarbonyl)-4-  
 (dicyclohexylphosphino)-2-[(diphenylphosphino)methyl]pyrrolidine  
 rhodium(I) complexes were efficient catalysts for the asym. hydrogenation  
 of  $\beta$ - and  $\gamma$ -amino ketone hydrochloride derivs. Utilizing this  
 methodol., we have developed efficient syntheses of fluoxetine and  
 eprozinol from intermediate optically active amino alcs.  
 IT 2538-50-3P  
 RL: RCT (Reactant); **SPN (Synthetic preparation); PREP**  
**(Preparation);** RACT (Reactant or reagent)  
 (asym. hydrogenation of amino ketones with rhodium complex catalysts)  
 RN 2538-50-3 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX  
 NAME)



● HCl

L57 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1993:559860 HCAPLUS  
 DN 119:159860  
 TI Preparation of optically active 3-amino-1-phenylpropanols  
 IN Achinami, Kazuo; Yuya, Masakazu  
 PA Fuji Yakuhin Kogyo Kk, Japan; Achinami Kazuo  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05070412	A2	19930323	JP 1991-310278	19910913 <--
PRAI	JP 1991-310278		19910913	<--	
OS	CASREACT 119:159860; MARPAT 119:159860				
GI					



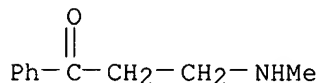


AB Optically active  $\text{PhCH(OH)CH}_2\text{CH}_2\text{NR}_1\text{R}_2$  (I;  $\text{R}_1, \text{R}_2 = \text{H}$ , C1-4 alkyl, benzyl) mineral acid salts are prepared by asym. hydrogenation of  $\text{PhCOCH}_2\text{CH}_2\text{NR}_1\text{R}_2$  (II;  $\text{R}_1, \text{R}_2 = \text{same as I}$ ) mineral acid salts with metal complex catalysts containing optically active phosphinopyrrolidones (2S,4S)- or (2R,4R)-III ( $\text{R}_3 = \text{H}$ , COR5, CO2R6, CONHR7;  $\text{R}_4 = \text{Ph}$  optionally substituted with 1-3 groups chosen from lower alkyl, alkoxy, and dialkylamino;  $\text{R}_5-7 = \text{alkyl, aryl}$ ) as ligands. Chloro(1,5-cyclooctadiene)rhodium, (2S,4S)-III ( $\text{R}_3 = \text{Me}$ ,  $\text{R}_4 = \text{Ph}$ ), and II.HCl ( $\text{R}_1 = \text{Me}$ ,  $\text{R}_2 = \text{benzyl}$ ) in MeOH were stirred under 30 atm H at 50° for 48 h to give .apprx.100% (R)-I.HCl ( $\text{R}_1 = \text{Me}$ ,  $\text{R}_2 = \text{benzyl}$ ) of 90.8% ee.

IT **2538-50-3P**  
 RL: RCT (Reactant); **SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)**  
 (preparation and stereoselective hydrogenation of)

RN 2538-50-3 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L57 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:20725 HCAPLUS

DN 116:20725

TI Asymmetric reactions catalyzed by chiral metal complexes. XLVIII.  
 Practical asymmetric synthesis of (R)-fluoxetine hydrochloride catalyzed by (2S,4S)-4-dicyclohexylphosphino-2-diphenylphosphinomethyl-1-(N-methylcarbamoyl)pyrrolidine-rhodium complex

AU Sakuraba, Shunji; Achiwa, Kazuo

CS Sch. Pharm. Sci., Univ. Shizuoka, Shizuoka, 422, Japan

SO Synlett (1991), (10), 689-90

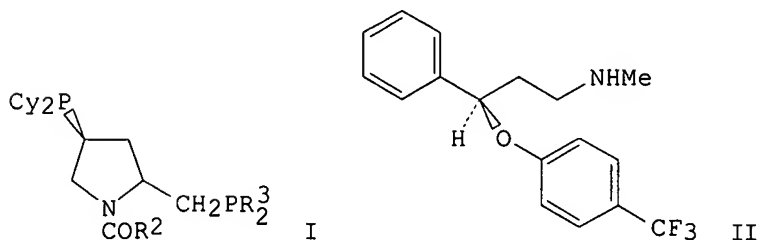
CODEN: SYNLES; ISSN: 0936-5214

DT Journal

LA English

OS CASREACT 116:20725

GI

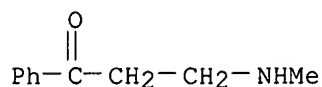


AB Asym. hydrogenation of  $\text{PhCOCH}_2\text{CH}_2\text{NRR1}$  ( $\text{R} = \text{CH}_2\text{Ph}$ ,  $\text{H}$ ,  $\text{R1} = \text{Me}$ ) in the presence of Rh catalysts,  $[\text{Rh}(\text{COD})\text{Cl}]_2\text{-(2S,4S)-I}$  ( $\text{COD} = \text{cycloocta-1,4-diene}$ ) **I** ( $\text{R2} = \text{NHMe}$ ,  $\text{R3} = \text{Ph}$ ,  $3,5\text{-MeC}_6\text{H}_3$ ,  $\text{Cy} = \text{cyclohexyl}$ ;  $\text{R2} = \text{OCMe}_3$ ,  $\text{R3} = \text{Ph}$ ,  $\text{Cy} = \text{cyclohexyl}$ ), gave  $\text{PhCH(OH)CH}_2\text{CH}_2\text{NRR1.HCl}$  with R-configuration at the hydroxy carbon. Through this procedure (R)-fluooxetine **II** was prepared

IT **2538-50-3**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (asym. hydrogenation of, in presence of rhodium catalyst)

RN 2538-50-3 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L57 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:5913 HCAPLUS

DN 114:5913

TI Synthesis of tritium labeled 1-(3,4-dichlorophenyl)-3-(methylamino)propanol hydrochloride

AU Hill, John A.; Wisowaty, James C.

CS Chem. Dev. Lab., Burroughs Wellcome Co., Research Triangle Park, NC, 27709, USA

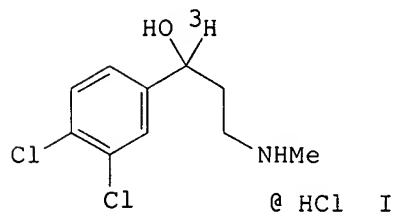
SO Journal of Labelled Compounds and Radiopharmaceuticals (1990), 28(7), 811-18  
 CODEN: JLCRD4; ISSN: 0362-4803

DT Journal

LA English

OS CASREACT 114:5913

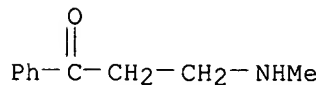
GI



AB 1-(3,4-Dichlorophenyl)-3-(methylamino)-1-propanol hydrochloride, a potential antidepressant, was synthesized by a two-step method in the  $[3\text{H}]$ -labeled form **I** with specific activity 12.5 mCi/mmol suitable for drug metabolism and disposition studies.

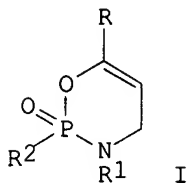
IT **2538-50-3P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)  
 RN 2538-50-3 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

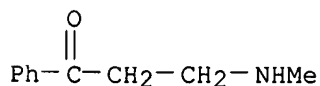


● HCl

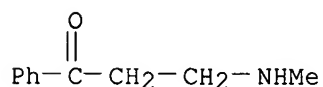
L57 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1985:166839 HCAPLUS  
 DN 102:166839  
 TI Synthesis of heterocyclic compounds: part XXVI - 3,6-diaryl-3,4-dihydro-1,3,2-oxazaphosphorin 2-oxides  
 AU Modak, A. S.; Gogte, V. N.; Tilak, B. D.  
 CS Natl. Chem. Lab., Pune, 411 008, India  
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1984), 23B(10), 907-13  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DT Journal  
 LA English  
 OS CASREACT 102:166839  
 GI



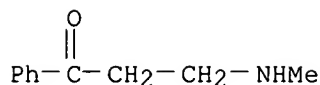
AB Cyclization of  $\text{RCOCH}_2\text{CH}_2\text{NHR}_1$  ( $\text{R} = \text{Ph}$ , 2-naphthyl 2-thienyl p-anisyl, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>;  $\text{R}_1 = \text{Ph}$ , p-anisyl, Me, o-, p-tolyl, o-, p-ClC<sub>6</sub>H<sub>4</sub>) with  $\text{POCl}_3$  gave 23-78% 20 I ( $\text{R}_2 = \text{Cl}$ ), which were aminated to give I ( $\text{R}_2 = \text{Et}_2\text{N}$ , morpholino, aziridino, piperidino, EtNH, NH<sub>2</sub>).  
 IT 27152-62-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclization of, with phosphorus oxychloride)  
 RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)



L57 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1983:405293 HCAPLUS  
 DN 99:5293  
 TI (Aminomethyl)acetophenone derivatives and their biological properties  
 AU Agababyan, A. G.; Gevorgyan, G. A.; Tumadzhyan, A. E.; Melkonyan, Zh. S.;  
 Durgaryan, L. K.; Azlivyan, A. S.; Apoyan, N. A.; Mndzhoyan, O. L.  
 CS Inst. Tonkoi Org. Khim. im. Mndzhoyana, Yerevan, USSR  
 SO Khimiko-Farmatsevticheskii Zhurnal (1983), 17(3), 303-8  
 CODEN: KHFZAN; ISSN: -0023-1134  
 DT Journal  
 LA Russian  
 AB 4-RC6H4COCH2CH2NHCH(CO2H)CH2C6H4R1-4·HCl (R = H, PrO, Br, NO2, MeO,  
 EtO; R1 = H, OH), 4-RC6H4COCH2CH2NMeCH2CO2R1·HCl (R = H, Br, Cl,  
 Ph; R1 = H, Et), and 4-PhC6H4COCH2CH2NHCH2CO2Et·HCl were prepared by  
 Mannich reactions of 4-RC6H4COMe. In several cases the free amines were  
 also prepared. Some of the compds. showed analgesic, local anesthetic, and  
 antiinflammatory activity; the most effective ones had lower local  
 anesthetic activity than novocain.  
 IT 27152-62-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with Me bromoacetate)  
 RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)

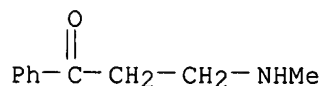


L57 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1983:127460 HCAPLUS  
 DN 98:127460  
 TI Vulcanization activity of  $\beta$ -aminoketone derivatives  
 AU Samodaeva, V. A.; Gridunov, I. T.; Kazakova, E. N.; Cherkasova, E. M.  
 CS MITKhT, Moscow, USSR  
 SO Kauchuk i Rezina (1982), (12), 19-20  
 CODEN: KCRZAE; ISSN: 0022-9466  
 DT Journal  
 LA Russian  
 AB The activity of  $\beta$ -alkylamino- and  $\beta$ -dialkylaminopropiophenone  
 oximes, having the general formula  $\text{PhC}(:\text{NOH})(\text{CH}_2)_2\text{NRR}_1$  (R = H, Me; R1 =  
 Me), to accelerate the S vulcanization of natural rubber depends on the  
 reactivity of oxime group and of the N atom in the amino group. The  
 activity of the vulcanization accelerators decreases in the order:  
 $\beta$ -methylaminopropiophenone oxime [84606-61-1] >  $\beta$ -  
 methylaminopropiophenone hydrochloride [2538-50-3] >  
 $\beta$ -dimethylaminopropiophenone oxime [1485-16-1] >  
 $\beta$ -dimethylaminopropiophenone hydrochloride [879-72-1] > acetophenone  
 oxime [613-91-2]. The  $\beta$ -alkylamino- and  $\beta$ -  
 dialkylaminopropiophenone oximes were prepared by reaction of  
 $\beta$ -aminoketone hydrochlorides with  $\text{NH}_2\text{OH}\cdot\text{HCl}$ .  
 IT 2538-50-3  
 RL: USES (Uses)  
 (vulcanization accelerators, for natural rubber)  
 RN 2538-50-3 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX  
 NAME)



● HCl

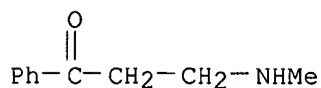
L57 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1977:72090 HCAPLUS  
 DN 86:72090  
 TI Synthesis and study of the steric structure of substituted methyl- and phenyl[2-(methylamino)ethyl]carbinols with secondary and tertiary hydroxyl groups  
 AU Boiko, I. P.; Zhuk, O. I.; Malina, Yu. F.; Samitov, Yu. Yu.; Unkovskii, B. V.  
 CS Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR  
 SO Zhurnal Organicheskoi Khimii (1976), 12(10), 2107-15  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DT Journal  
 LA Russian  
 AB LiAlH<sub>4</sub> reduction of 7 RCOCHR<sub>1</sub>CR<sub>2</sub>R<sub>3</sub>NHMe.HCl (R = Me, Ph; R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> = H, Me) in Et<sub>2</sub>O afforded threo- and erythro-HOCHRCHR<sub>1</sub>CR<sub>2</sub>R<sub>3</sub>NHMe in 56.8-97% yield, with the latter predominating in all cases. MeNRCH<sub>2</sub>CHMeCO<sub>2</sub>Me (I; R = H) was acetylated with Ac<sub>2</sub>O to give 83.4% I (R = Ac), which was treated with LiAlH<sub>4</sub> or RLi (R = Me, Et, Ph) to give 50-94% MeNHCH<sub>2</sub>CHMeCR<sub>2</sub>OH (R = H, Me, Et, Ph). These compds. exist in quasi-cyclic form stabilized by an intermol. OH...N H bond.  
 IT 2538-50-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reduction of, with lithium aluminum hydride, configuration of products from)  
 RN 2538-50-3 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

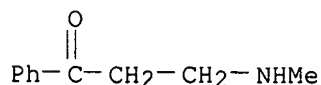
L57 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1975:442975 HCAPLUS  
 DN 83:42975  
 TI Chemistry of β-amino ketones. VII. Synthesis of substituted methyl and phenyl β-[[methyl(β-acylethyl)]amino]ethyl ketones by the aminomethylation of ketones by formaldehyde and salts of methyl and phenyl β-methylaminoalkyl ketones  
 AU Badosov, E. P.; Khasirdzhev, A. B.; Golovin, E. T.; Unkovskii, B. V.  
 CS Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR

SO Zhurnal Organicheskoi Khimii (1975), 11(5), 972-7  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DT Journal  
 LA Russian  
 AB Seven PhCOCHRCH2NMeCH2R1R2COR3 (R, R1, R2 = H, Me; R3 = H, Me, Ph) were prepared in 6.35-81% yield by reaction of PhCOCHRCH2NHMe.HCl with CH2O and R3COCHR1R2. Reaction of MeCOCHMeCHMeNHMe.HCl, PhCOMe, and CH2O gave only [PhCO(CH2)2]NMe.HCl, an unexpected product.  
 IT 2538-50-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 2538-50-3 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L57 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1974:403297 HCAPLUS  
 DN 81:3297  
 TI Chemistry of  $\beta$ -amino ketones. V. Synthesis of methyl- and phenyl- $\beta$ -[N-methyl-N-( $\beta$ -cyanoalkyl)amino]alkyl ketones  
 AU Golovin, E. T.; Badosov, E. P.; Nikiforova, A. P.; Unkovskii, B. V.  
 CS Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR  
 SO Zhurnal Organicheskoi Khimii (1974), 10(4), 706-12  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DT Journal  
 LA Russian  
 AB MeNHCH2CH2CN added to RCOCR1:CHR2 (I; R = Me, Ph; R1, R2 = H, Me) at 20° to give 6 corresponding RCOCHR1CHR2NMeCH2CH2CN (II) in >83% yield; the reactivity of I decreased in the order RCOCH:CH2 > RCOCMe:-CH2 > RCOCH:CHMe > RCOCMe:CHMe. PhCOMe condensed with HCHO and MeNHCH2CHMeCN at 70° to give 83% PhCOCH2CH2NMeCH2CHMeCN, and MeCOCH2CMe2NHMe added to CH2:CHCN at 20° to form 19% MeCOCH2CMe2NMeCH2CH2CN; these methods gave lower yields when applied to the preparation of II.  
 IT 27152-62-1  
 RL: RCT (Reactant); RACT (Reactant or reagent) (addition reaction of, with acrylonitrile)  
 RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)



L57 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1972:60668 HCAPLUS  
 DN 76:60668

TI Quantitative correlation between basicity and vulcanization activity of some  $\beta$ -amino ketones

AU Donskaya, M. M.; Abdel Bari, Sayed; Unkovskii, B. V.; Gridunov, I. T.

CS Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR

SO Kauchuk i Rezina (1971), 30(11), 12-14  
CODEN: KCRZAE; ISSN: 0022-9466

DT Journal

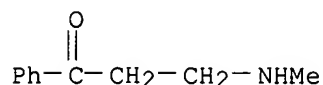
LA Russian

AB Linear relations between the pKa of  $\beta$ -aminoketones I (R and R1 are H, Me, Et, cyclohexyl, Ph, or PhCH<sub>2</sub>; NRR1 is piperidino or morpholino) and the vulcanization time (t) of standard rubber mixes containing these accelerators have the form  $t = t_0 + a \text{ pKa}$ . The consts.  $t_0$  and  $a$  depend on the rubber type and other mix components. These consts. were determined for natural rubber and an isoprene rubber-butadiene-methylstyrene rubber mix.

IT 2538-50-3  
RL: USES (Uses)  
(vulcanization accelerators, basicity of, vulcanization activity in relation to)

RN 2538-50-3 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L57 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1970:478288 HCAPLUS

DN 73:78288

TI Relation of the vulcanization activity of some phenyl  $\beta$ -amino ketones to their basicity

AU Unkovskii, B. V.; Donskaya, M. M.; Sayed, Abdel Bari; Gridunov, I. T.

CS Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR

SO Kauchuk i Rezina (1970), 29(7), 22-4  
CODEN: KCRZAE; ISSN: 0022-9466

DT Journal

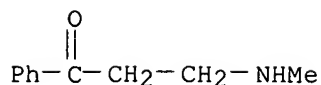
LA Russian

AB Rubber mixes containing natural rubber 100, stearic acid 0.5, ZnO 5.0, S 3.0, 2-mercaptobenzothiazole (I) 0.7, or BzCH<sub>2</sub>CH<sub>2</sub>R (II) (R = NHMe<sub>2</sub>, NHCH<sub>2</sub>Ph, NHPH, NMe<sub>2</sub>, NEt<sub>2</sub>, piperidino, or morpholino) instead of I gave excellent vulcanizates. The replacement of I with a 1:1 molar di-2-benzothiazolyl disulfide-II.HCl mixture gave vulcanizates of higher tear resistance than vulcanizates containing I. The vulcanizing activity of II increases with their pKa.

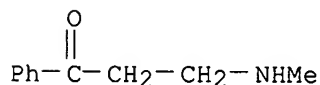
IT 27152-62-1  
RL: PROC (Process)  
(rubber vulcanization in presence of, for improved tear resistance)

RN 27152-62-1 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)

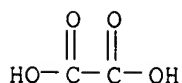


L57 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1969:460938 HCAPLUS  
 DN 71:60938  
 TI Simple synthesis of secondary Mannich bases  
 AU Becker, Heinz G. O.; Ecknig, W.; Fanghaenel, Egon; Rommel, S.  
 SO Wissenschaftliche Zeitschrift der Technischen Hochschule fuer Chemie Carl  
 Schorlemmer Leuna-Merseburg (1969), Volume Date 1968, 11(1),  
 38-41  
 CODEN: WZTLA3; ISSN: 0043-6909  
 DT Journal  
 LA German  
 AB The H oxalates of primary and secondary amines react with a ketone and  
 H<sub>2</sub>CO to form a Mannich base in good yield. Me<sub>2</sub>CO, MeCOEt, Et<sub>2</sub>CO, and AcPh  
 were treated successfully with the H oxalates of MeNH<sub>2</sub>, EtNH<sub>2</sub>, and  
 PhCH<sub>2</sub>NH<sub>2</sub>. The H oxalates of secondary Mannich bases reacted with 2 moles  
 p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl in pyridine to give the sulfonamides, which could be cleaved  
 in 10% NaOH to the vinyl ketone and the N-substituted-p-  
 toluenesulfonamide. The tertiary Mannich bases react with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NHMe  
 in the presence of water to give the ketosulfonamides. The  
 R1COCHR<sub>2</sub>CH<sub>2</sub>NHR<sub>3</sub>.HO<sub>2</sub>CCO<sub>2</sub>H (I) prepared are tabulated. The following  
 R1COCHR<sub>2</sub>CH<sub>2</sub>NMeSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-p (II) were prepared (R<sub>1</sub>, R<sub>2</sub>, m.p., and m.p.  
 2,4-dinitrophenylhydrazine given): Ph, H, 83-5°, -; Me, H,  
 66-8°, 145-6°; Me, Me, -(oil), 194-5°; Et, Me,  
 -(oil), 145-6°. Even with a ten-fold excess of H<sub>2</sub>CO the formation  
 of the normal secondary Mannich base occurs and very little of the bis  
 product is isolated.  
 IT **23464-19-9P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 23464-19-9 HCAPLUS  
 CN Propiophenone, 3-(methylanino)-, oxalate (1:1) (8CI) (CA INDEX NAME)  
 CM 1  
 CRN 27152-62-1  
 CMF C10 H13 N O



CM 2  
 CRN 144-62-7  
 CMF C2 H2 O4





L57 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1965:15168 HCAPLUS

-DN 62:15168

OREF 62:2731b-e

TI Preparation of Mannich bases with reversibly blocked nitrogen atom

AU Becker, H. G. O.; Fanghaenel, E.

CS Tech. Hochschule, Leuna, Merseburg, Germany

SO Journal fuer Praktische Chemie (Leipzig) (1964), 26(1-2), 58-66

CODEN: JPCEAO; ISSN: 0021-8383

DT Journal

LA German

OS CASREACT 62:15168

GI For diagram(s), see printed CA Issue.

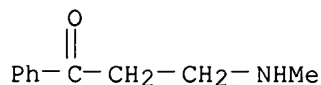
AB The formation of Mannich bases from AcPh, CH<sub>2</sub>O, and amines of the trityl, benzhydryl, and tert-butyl series and the selective removal of these groups from the resulting Mannich base were studied. p-MeOC<sub>6</sub>H<sub>4</sub>CHPhNH<sub>2</sub> (I) was converted in this manner via p-MeOC<sub>6</sub>H<sub>4</sub>CHPhNHCH<sub>2</sub>CH<sub>2</sub>Bz (II) in 60% yield into BzCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> (III). p-MeOC<sub>6</sub>H<sub>4</sub>Bz (1 mole) in 200 cc. EtOH, 1 cc. AcOH, and 5 moles MeNH<sub>2</sub> hydrogenated at 150°/140 atmospheric over 30 g. Raney Ni yielded 71% p-MeOC<sub>6</sub>H<sub>4</sub>CHPhNHMe (IV), b<sub>11</sub> 193-5°; acid oxalate m. 184°; neutral oxalate m. 206-10°. p-MeOC<sub>6</sub>H<sub>4</sub>CHNMe with p-MeOC<sub>6</sub>H<sub>4</sub>MgBr yielded 41% (p-MeOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHNHMe (V), b<sub>13</sub> 224°, m. 48-9°; acid oxalate m. 145°. Ph<sub>3</sub>CCl with MeNH<sub>2</sub> yielded Ph<sub>3</sub>CNHMe, m. 73°; HCl salt m. 236°. The appropriate amine HCl salt (0.02 mole), 0.022 mole paraformaldehyde, and 20 cc. AcPh heated 0.5 hr. at 150°, and the resulting HCl salt dissolved in warm MeOH and treated with 20% aqueous NaOH yielded the corresponding free Mannich bases listed in the table. VI and VII were also prepared in 66 and 82% yield, resp., by refluxing 0.1 mole appropriate amine-HCl salt, 0.11 mole paraformaldehyde, 0.2 mole AcPh, 0.3 cc. concentrated HCl, and 30 cc. EtOH for

8 hrs. tert-Butylformimine (10 g.) and 15 g. AcPh treated with dry HCl gave 15 g. tert-BuNHCH<sub>2</sub>CH<sub>2</sub>Bz. Mannich base, Amine-HCl salt used, % yield, m.p. of HCl salt, m.p. of base; tert-BuNHCH<sub>2</sub>CH<sub>2</sub>Bz, , tert-BuNH<sub>2</sub>, 82, 206-8°, 160-1°; Ph<sub>2</sub>CHNHCH<sub>2</sub>CH<sub>2</sub>Bz (VI), Ph<sub>2</sub>CHNH<sub>2</sub>, 81, decomposed from 170, 109°; Ph<sub>2</sub>CHNMeCH<sub>2</sub>CH<sub>2</sub>Bz (VII), Ph<sub>2</sub>CHNHMe, 90, decomposed 185°, 80°; II, I, 86, 173-6°, 85; MeN(CH<sub>2</sub>CH<sub>2</sub>Bz)<sub>2</sub>, IV, 90, 165°, --; (p-MeOCH<sub>4</sub>)<sub>2</sub>CHNHCH<sub>2</sub>CH<sub>2</sub>Bz (VIII), (p-MeOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHNH<sub>2</sub>, 16, 168°, 104-5°; HN(CH<sub>2</sub>CH<sub>2</sub>Bz)<sub>2</sub> (IX), --, 50, 175°, --; , MeN(CH<sub>2</sub>CH<sub>2</sub>Bz)<sub>2</sub>, V, 95, 165°, --; IX, Ph<sub>3</sub>CNH<sub>2</sub>, 95, 175°, --; MeN(CH<sub>2</sub>CH<sub>2</sub>Bz)<sub>2</sub>, Ph<sub>3</sub>CNHMe, 95, 165°, --; MeNHCH<sub>2</sub>CH<sub>2</sub>Bz, IV, 71, 164°, --; MeNHCH<sub>2</sub>CH<sub>2</sub>Bz, V, 90, 164°, --; II (0.01 mole) and 15 cc. concentrated HCl or a mixture of 7 cc. each of concentrated HCl and AcOH heated 2 hrs. in a sealed tube at 150° gave III, m. 128°, which was obtained similarly from VIII, and BzCH:CH<sub>2</sub>, b<sub>2.5</sub> 74-6°. BzCH:CH<sub>2</sub> with PhNHNH<sub>2</sub> yielded 1,3-diphenylpyrazoline, m. 152°. II (0.1 mole), 100 cc. 97% HCO<sub>2</sub>H, and 30 cc. 48% HBr refluxed 3 hrs. yielded 74% III.HBr, m. 144° (EtOH).

IT 2538-50-3, Propiophenone, 3-(methylamino)-, hydrochloride (preparation of)

RN 2538-50-3 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L57 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1961:2694 HCAPLUS

DN 55:2694

OREF 55:543i,544a-c

TI Synthesis of decahydroisoquinoline derivatives. VIII. Syntheses of 2-methyl-4-benzoyl-10-hydroxydecahydroisoquinoline and its isomer

AU Satoda, Isao; Murayama, Masao; Omoto, Toshikazu; Kawamata, Masanobu

CS Nippon Shinyaku Co., Kyoto

SO Yakugaku Zasshi (1960), 80, 1071-6

CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

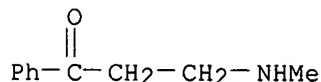
LA Unavailable

AB cf. CA 54, 13138d. PhCOMe (120 g.), 70 g. MeNH<sub>2</sub>.HCl, and 30 g. (CH<sub>2</sub>O)<sub>n</sub> in 150 ml. EtOH heated 6 hrs. at 100-10°, the solution filtered hot, the EtOH in the filtrate removed, the residue in H<sub>2</sub>O washed with Et<sub>2</sub>O, the aqueous layer steam distilled to remove tertiary amine, the residue extracted with warm CHCl<sub>3</sub>, and concentrated gave 50 g. BzCH<sub>2</sub>CH<sub>2</sub>NHMe.HCl (I), needles, m. 141° (MeOH-Me<sub>2</sub>CO). I (5.5 g.), 2.75 g. cyclohexanone, and 2.2 g. 35% HCHO in 11 ml. H<sub>2</sub>O kept 3 days at room temperature, the mixture heated 24 hrs. at 70-80°, made alkaline with 10% NH<sub>4</sub>OH, and the product extracted with Et<sub>2</sub>O gave 8% 2-methyl-4-benzoyl-10-hydroxydecahydroisoquinoline (II), needles, m. 163-5° (Me<sub>2</sub>CO); the mother liquor yielded 26% isomer (III) of II, needles, m. 105-7°. II (1 g.) in 20 ml. Et<sub>2</sub>O at 0° stirred 1 hr. with Et<sub>2</sub>O-HCl, the precipitate filtered off, and recrystd. (EtOH-Et<sub>2</sub>O) gave 1 g. II.HCl (IV), needles, m. 280-90°. IV with cold dilute NH<sub>4</sub>OH gave II, m. 163-5°, while IV with 20% NaOH at room temperature gave III, m. 105-7°. III (1 g.) in 20 ml. Et<sub>2</sub>O at 0° stirred 1 hr. with Et<sub>2</sub>O-HCl and the product filtered off gave 1 g. III.HCl (V), needles, m. 163-4° (EtOH-Et<sub>2</sub>O). V with cold dilute NH<sub>4</sub>OH or with 20% NaOH at room temperature gave III, m. 105-7°. II (200 mg.) in 5 ml. Me<sub>2</sub>CO and 1 ml. H<sub>2</sub>O heated 20 min. on a H<sub>2</sub>O bath and cooled gave 130 mg. III, m. 105-7°. Thus, the isomers II and III were stereoisomers with different steric configuration at the 4-position.

IT 2538-50-3, Propiophenone, 3-methylamino-, hydrochloride (preparation of)

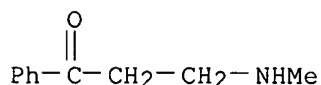
RN 2538-50-3 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

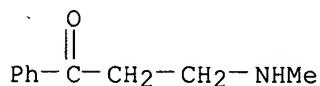
L57 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1959:13099 HCAPLUS  
 DN 53:13099  
 OREF 53:2482i,2483a-b  
 TI Pharmacological and pharmacochemical studies on amino ketones  
 AU Nador, K.; Porszasz, J.  
 CS Univ. Szeged, Hung.  
 SO Arzneimittel-Forschung (1958), 8, -313-19  
 CODEN: ARZNAD; ISSN: 0004-4172  
 DT Journal  
 LA Unavailable  
 AB The following new amino ketones were prepared by Mannich reaction and tested pharmacologically (no phys. or chemical data are given): 1-piperidino-3-phenyl-3-propanone-HCl; 1-diethylamino-3-phenyl-3-propanone-HCl; 1-(2,6-dimethylpiperidyl)-3-phenyl-3-propanone-HCl; 1-piperidyl-3-(5,6,7,8-tetrahydro-2-naphthyl)-3-propanone-HCl; 1-methylamino-3-phenyl-3-propanone-HCl; 1-piperidino-3-butanone; 3-(piperidinomethyl)cyclohexanone (I); 1-(trimethylammonium)-3-butanone iodide; 2-(piperidinomethyl)decahydronaphthalen-1-one; 2-piperidino-1,2,3,4-tetrahydronaphthalen-1-one (II); N-(piperidinomethyl)phthalimide. Compds. of the general structure >NCH<sub>2</sub>CH<sub>2</sub>COR where R = aryl have an anti-nicotine effect whereas those with R = alkyl and cyclic amino ketones have a nicotine-like effect, I having the highest activity. Other compds. show adrenolytic action. II acts similarly to chlorpromazine.  
 IT 27152-62-1, Propiophenone, 3-methylamino-  
 (pharmacology of)  
 RN 27152-62-1 HCAPLUS  
 CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)



L57 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1956:45868 HCAPLUS  
 DN 50:45868  
 OREF 50:8888a-e  
 TI Pharmacology of amino ketones with nicotinic and anti-nicotinic effects.  
 II  
 AU Porszasz, J.; Nador, K.; Gibiszer-Porszasz, K.; Wieszt, T.; Padany, R.  
 CS Med. Univ., Budapest  
 SO Acta Physiologica Academiae Scientiarum Hungaricae (1955), 7,  
 139-61  
 CODEN: APACAB; ISSN: 0001-6756  
 DT Journal  
 LA German  
 AB cf. C.A. 49, 3394i. A survey was made of the nicotinic or antinicotinic effects on blood pressure, on respiration, on the heart, and on the central nervous system, of the following compds: 1-piperidino-2-propanone, 4-(1-pyrrolidinyl)-2-butanone 4-piperidino-2-butanone, 5-piperidino-2-pentanone, 1-piperidino-4,4-dimethyl-3-pentanone, 4-piperidino-3-methyl-2-butanone, 3-(piperidinomethyl)-2-octanone, N,N-bis(2-benzoylethyl)methylamine, 1,6-dipiperidino-3,4-hexanedione, trimethyl(3-oxobutyl)aminonium iodide, (2-oxocyclopentylmethyl)diethylamine, 2-(1-pyrrolidinylmethyl)cyclopentanone, 2-(piperidinomethyl)cyclopentanone

one, 2-(2-methylpiperidinomethyl)cyclopentanone, 2-(4-ethylpiperidinomethyl)cyclopentanone, 2-(cis-2,6-dimethylpiperidinomethyl)cyclopentanone, (2-oxocyclohexylmethyl)dimethylamine, (2-oxocyclohexylmethyl)diethylamine, 2-(1-pyrrolidinylmethyl)cyclohexanone, 2-(piperidinomethyl)cyclohexanone, 2-(cis-2,6-dimethylpiperidinomethyl)cyclohexanone, 4-methyl-2-(piperidinomethyl)cyclohexanone, 2-(morpholinomethyl)cyclohexanone, 2-(piperidinomethyl)-1-indanone, 3-(piperidinomethyl)camphor, octahydro-3-(piperidinomethyl)-2(1H)-naphthalenone, 2-(piperidinomethyl)-1-acenaphthenone, N,N-diethylnicotinamide, lobeline, N-benzoyl ethylmethylamine, 5',6',7',8'-tetrahydro-3-piperidino-2'-propionaphthone, 1-phenyl-5-piperidino-1-penten-3-one, (2-benzoyl ethyl)trimethylammonium iodide, (2-benzoyl ethyl)benzyl dimethylammonium bromide, N-(2-benzoyl ethyl)pyrrolidine; 1-phenyl-5-pyrrolidinyl-1-penten-3-one, N-(2-benzoyl ethyl)-2-methyl-piperidine, N-(2-benzoyl ethyl)piperidine, 1-phenyl-4-piperidino-2-butanone, and parpanit.

IT 27152-62-1, Propiophenone, 3-methylamino-  
(pharmacol. of)  
RN 27152-62-1 HCAPLUS  
CN 1-Propanone, 3-(methylamino)-1-phenyl- (9CI) (CA INDEX NAME)



L57 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1952:2660 HCAPLUS

DN 46:2660

OREF 46:477g-i,478a-i,479a-d

TI Structural rearrangements of hydrazones

AU Theilacker, Walter; Leichtle, Otto R.

CS Tech. Hochschule, Hanover, Germany

SO Ann. (1951), 572, 121-44

DT Journal

LA Unavailable

GI For diagram(s), see printed CA Issue.

AB To 30 g. Ph2C:NNHPh (I) in dry Et2O were added 16 g. 70% HClO4 (II) and 27 g. Ac2O in Et2O, giving 39-40 g. II salt (III) of I, red needles, m. 186° (decomposition) (from glacial AcOH), rapidly and quantitatively hydrolyzed to I and II. When heated 9 hrs. in dry dioxane at 100°, III remained largely unchanged, giving, however, about 2 g. p-C6H4(NH2)2.2H ClO4, dark yellow, identified by conversion into the free base (IV), m. 139°, and its HCl salt. In this and subsequent rearrangements, full details are given for the separation and identification of small amts. of degradation products which in this case included BzPh, PhNHNH2, PhNH2, and NH3. When 6 g. III was heated in 100 cc. boiling PhBr, small amts. of NH4ClO4 and the II salt of IV formed (exploding, without melting between 200 and 300°) (identified by conversion into the di-Ac derivative of IV, did not m. below 290°). An unidentified violet-black amorphous substance (possibly due to oxidation of IV) was also formed. The mechanism of this p-semidine rearrangement with concomitant reduction and oxidation is discussed. p-MeC6H4NHN: CPh2 (cf. Sah and Lei, C.A. 27, 4222) yielded 70% of the II salt (V), C20H18N2.HClO4, dark red needles, m. 162° (decomposition). V heated briefly in PhBr gave resinous products, and small amts. of p-MeC6H4NH2 (identified as the HCl salt, m. 232°), NH3, traces of BzPh, but no 3,4-(H2N)2C6H3Me (showing that no o-semidine rearrangement had occurred).

To 20 g. I, 70 cc. Ac<sub>2</sub>O, and 10 g. dry ZnCl<sub>2</sub> were added 10 cc. AcOH and 10 cc. Ac<sub>2</sub>O, the mixture warmed on a steam bath, cooled, and the filtered product washed with Ac<sub>2</sub>O and with C<sub>6</sub>H<sub>6</sub> and dried over H<sub>2</sub>SO<sub>4</sub>, giving 30 g. of a compound (VI), C<sub>21</sub>H<sub>18</sub>ON<sub>2</sub>.ZnCl<sub>2</sub>, hygroscopic crystals, m. 214-15° which with MeOH, followed by H<sub>2</sub>O, gave Ph<sub>2</sub>C:NNAcPh (VII), m. 90-1° (from cyclohexane, followed by petr. ether), split quantitatively by concentrated HCl into PhBz and (after treatment with aqueous NaOH) PhNAcNH<sub>2</sub>, m. 119-20° (from cyclohexane). Heating VI 6 hrs. at 200-20° with excess ZnCl<sub>2</sub>, followed by treatment with MeOH gave 47% of the theoretical amount of BzPh and 30% of approx. equal parts of IV and 2-methylbenzimidazole, m. 166-8° (after sublimation). In another similar experiment, 20 g. VI (heated with 6.5 g. ZnCl<sub>2</sub>) gave 5 g. BzPh and the same bases, as well as 0.4 g. o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub>, m. 98-99°, thus indicating that both p- and o-semidine rearrangements had occurred. PhCMe:NNHPh gave an 80% (crude) yield of the II salt, yellow leaflets with greenish sheen, m. 158° (from 1:1 Et<sub>2</sub>O-AcOH); this, refluxed 0.25 hr. in PhBr, gave 4.7 g. of a mixture of NH<sub>4</sub>ClO<sub>4</sub> and 2-phenylindole, m. 186° (from ligroine). Heating Ph<sub>2</sub>CCl<sub>2</sub> and H<sub>2</sub>NNMe<sub>2</sub> 5 hrs., followed by Et<sub>2</sub>O extraction, washing with H<sub>2</sub>O, drying with K<sub>2</sub>CO<sub>3</sub>, and addition of II

gave

63% of the II salt (VIIa) of Ph<sub>2</sub>C:NNMe<sub>2</sub>, colorless, m. 172° (readily hydrolyzed into PhBz and H<sub>2</sub>NNMe<sub>2</sub>), and 2 by-products, (Ph<sub>2</sub>CCl)<sub>2</sub>, m. 180° (cf. Finkelstein, C.A. 4, 2641), and β-benzopinacolone, m. 181°. VIIa in Me<sub>2</sub>CO with excess aqueous NaOH gave an oil, which, extracted with Et<sub>2</sub>O, gave Ph<sub>2</sub>C:NNMe<sub>2</sub>, m. 34° (from petr. ether). Molten VIIa (2 g.) heated 1 hr. at 165-170° gave only about 0.25 g. NH<sub>4</sub>ClO<sub>4</sub>, and 0.2-0.25 g. of a compound (insol. in aqueous HCl),

m.

150-51° (probably 1-methyl-2-phenylisindole, the analytical data of which were lost during the war and which up to the present has not been resynthesized); much of the original material was recovered as PhBz and Me<sub>2</sub>NNH<sub>2</sub>. PhAc and H<sub>2</sub>NNMe<sub>2</sub> gave PhMeC:NNMe<sub>2</sub>, colorless oil not crystallizing

at

-15°; II salt (VIII), colorless needles, m. 107° (from EtOH), hydrolyzing slowly in moist air. When heated 2-3 hrs. at 160-70°, 60 g. VIII gave about 12.5 g. (N:CPh.CH<sub>2</sub>.CH<sub>2</sub>.N+ Me<sub>2</sub>)ClO<sub>4</sub> (IX), m. 213-14° (by extraction with AcOH and crystallization from H<sub>2</sub>O), 6.9 g. NH<sub>4</sub>ClO<sub>4</sub>, 4.6 g. MeNH<sub>3</sub>ClO<sub>4</sub> (isolated as the oxalate, m. 175°), 0.9 g. Me<sub>2</sub>NNH<sub>2</sub>HClO<sub>4</sub> (isolated as the oxalate, m. 144-145°), 0.4 g. (Me<sub>2</sub>N.N:CPh.CH<sub>2</sub>.CH<sub>2</sub>)ClO<sub>4</sub> (free base (X), m. 35-6°), 1.2 g. (Me<sub>2</sub>N.N:CPh.CH:CH)ClO<sub>4</sub> [isolated as the HCl salt, m. 86° (free base, m. 56°; picrate, m. 130-31°)], 0.1 g. BzCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>.MeClO<sub>4</sub> (m. 194-97°), and 2.4 g. dihydrodypnone, m. 72° (from MeOH). (Details of these sepns. are given.) PhMeC:NNMe<sub>2</sub> (1.85 g.) and 4.2 g. ZnCl<sub>2</sub> were heated 1 hr. at 200-20°, cooled, extracted with MeOH, the filtered extract poured into H<sub>2</sub>O, and the mixture

filtered

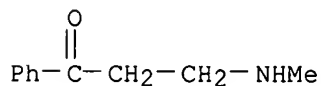
and treated with II, giving 0.55 g. VIII. When the above reaction was carried out with 4 (instead of 3) moles ZnCl<sub>2</sub>, 23% of the theoretical amount of VIII was formed. The following derivs. were prepared from VIII in good yields: picrate, m. 142-3° (from EtOH and dioxane); HI salt (XI), colorless leaflets, m. 220-21° (from EtOHAcOEt) (also formed from 1-methyl-3-phenylpyrazoline and MeI). The probable mechanism for the formation of IX (which contains 1 CH<sub>2</sub> group more than VIII) is fully discussed. With 15% aqueous KOH, 3 g. IX gave BzMe and, after treatment with HCl, fractionation, and addition of (CO<sub>2</sub>H)<sub>2</sub>, the Me<sub>2</sub>NNH<sub>2</sub> oxalate, m. 144-45° (giving a marked m.-p. depression with (MeNH)<sub>2</sub> oxalate, m. 132°). XI carefully heated at 220-40° (at 14 mm. pressure) gave 78% X (picrate, m. 132°) (cf. K. von Auwers and Heinke, C.A. 22,422). BzCH:CH<sub>2</sub> (0.7 g.) and 0.5 g. Me<sub>2</sub>NNH<sub>2</sub>.2HCl stirred 0.5 hr. at

100° extracted with Et<sub>2</sub>O and alc., and treated with II gave IX. IX was also formed by heating BzCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>.MeClO<sub>4</sub> and Me<sub>2</sub>NNH<sub>2</sub>.2HCl at 160-70°. The following derivs. of VIII, were prepd: MeI, C<sub>11</sub>H<sub>17</sub>N<sub>2</sub>I (XII), m. 147° (decomposition); picrate of XII, m. 121°; II salt of XII, m. 145°. Dihydrodypnone semicarbazone, m. 165-6°. Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>Bz (cf. Mannich and Heilner, C.A. 16, 2497) in Et<sub>2</sub>O reacted violently with MeI, giving a MeI derivative (XIII), m. 211-12° (readily split by heating with H<sub>2</sub>O into BzCH:CH<sub>2</sub> and Me<sub>3</sub>NHI). By treatment with excess aqueous AgNO<sub>3</sub>, filtration, and addition of NaClO<sub>4</sub>, XIII gave (2-benzoyl ethyl)trimethylammonium perchlorate, C<sub>12</sub>H<sub>18</sub>O<sub>5</sub>NCl, m. 196-199° (decomposition) (from PhNO<sub>2</sub>). BzMe and (PhCH<sub>2</sub>)<sub>2</sub>NNH<sub>2</sub> gave the corresponding hydrazone, C<sub>22</sub>H<sub>22</sub>N<sub>2</sub>, m. 53-54°; II salt (XIV), m. 163-65° (from PhMe). Heated 5 hrs. at 160-70° 2 g. XIV gave the following compds.: BzCH<sub>2</sub>CH<sub>2</sub>Ph, m. 70-71°; PhC:N.N(CH<sub>2</sub>Ph).CPh:CH (XV), m. 113-14°; a compound, C<sub>22</sub>H<sub>19</sub>N<sub>2</sub>Cl, m. 174-75° (not the HCl salt of either the pyrazole or pyrazoline); NH<sub>3</sub> and (PhCH<sub>2</sub>)<sub>2</sub>NH (isolated as the HCl salt, m. 258-59°). The HCl salt of XV decomposed about 160° giving XV; the HCl salt of the 1-benzyl-3,5-diphenylpyrazoline proved unstable, and decomposed on attempted recrystn. from EtOH. By refluxing 4.3 g. 1-aminopiperidine with 5.8 g. BzMe, followed by treatment with II (at 0° in Et<sub>2</sub>O), was formed 6 g. PhCMe:NH(ClO<sub>4</sub>).N.(CH<sub>2</sub>)<sub>4</sub>.CH<sub>2</sub>, m. 124-25° (from dioxane), which, when boiled 1 hr. in PhNO<sub>2</sub>, followed by extraction with aqueous HCl, then with C<sub>6</sub>H<sub>6</sub>, and treatment (of the aqueous layer) with 40% NaOH (with subsequent, fully described purifications) gave the base, C<sub>13</sub>H<sub>16</sub>N<sub>2</sub> or C<sub>13</sub>H<sub>14</sub>N<sub>2</sub> (probably the latter, i.e., N:CPh.CH:C.N.CH<sub>2</sub>.CH<sub>2</sub>.CH<sub>2</sub>.CH<sub>2</sub>), m. 81° (from MeOH); picrate, m. 177°. The above rearrangements (as well as those reported by other investigators) are fully discussed. Thirty-six references.

IT 857983-83-6, Propiophenone, 3-methylamino-, perchlorate  
 (preparation of)  
 RN 857983-83-6 HCAPLUS  
 CN Propiophenone, 3-methylamino-, perchlorate (5CI) (CA INDEX NAME)

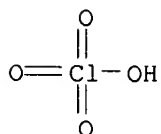
CM 1

CRN 27152-62-1  
 CMF C10 H13 N O



CM 2

CRN 7601-90-3  
 CMF Cl H O4



L57 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1942:12275 HCAPLUS

DN 36:12275

OREF 36:1914d-h

TI Preparation of  $\beta$ -keto amines by the Mannich reaction

AU Blicke, F. F.; Burckhalter, J. H.

SO Journal of the American Chemical Society (1942), 64, 451-4

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

OS CASREACT 36:12275

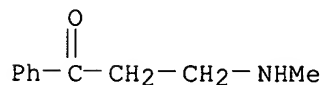
AB Equimol. amts. of PhAc and HCHO with MeNH<sub>2</sub>.HCl (Mannich and Heilner, C. A. 16, 2497) give 34 and 29%, resp., of (BzCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NMe.HCl (I) and BzCH<sub>2</sub>CH<sub>2</sub>NHMe.HCl (II). Steam distillation of I gives 78% of II and BzCH:CH<sub>2</sub>. Slow addition of aqueous NaOH to II in H<sub>2</sub>O at 30° gives 97% of the base of I; the intermediates are probably BzCH:CH<sub>2</sub> and MeNH<sub>2</sub>; equimol. amts. of the two intermediates give I but no II. Compds. IIA, III, VI, VII and IX were prepared by boiling 0.1 mol of ketone, 0.1 mol of the amine-HCl, 0.12 mol of (HCHO)<sub>x</sub> and 20 cc. absolute EtOH for 2-3 h.; the mixture was cooled, the precipitate filtered and the filtrate concentrated to recover more of the desired

compound; for compds. IV, V and VII, the reaction product is cooled, filtered, the solvent removed in vacuo, 50 cc. H<sub>2</sub>O added and the mixture extracted 3 times with 50-cc. portions of ether. Dimethyl-2-(2-thienyl)ethylamine-HCl (IIA), m. 178-9°, 47%; steam distillation of IIA gives 44% of 2-thienyl vinyl ketone (IIB), b<sub>12</sub> 108-10° (PhNHNH<sub>2</sub> gives 1-phenyl-3-(2-thienyl)pyrazoline, m. 102-3°). 1-(1-Piperidyl)-2-(2-thienyl)ethane HCl (III), m. 201-2°, 74%. Diethyl-2-(2-thienyl)ethyl-amine-HCl (IV), m. 116-17°, 39%; steam distillation gives IIB. Dimethyl-2-(2-thienyl)propylamine-HCl (V), m. 154-6°, 60%; steam distillation gives 71% of 2-(2-thienyl)propene, b<sub>19</sub> 118-20° (PhNHNH<sub>2</sub> probably yields 1-Ph - 3 - (2 - thienyl) - 4 - methylpyrazoline, m. 81-3°). Methylbis[2-(2-thienyl)ethyl]amine-HCl (VI), m. 185-6°; the free base m. 146-8°. Methyl(2-benzoyl)ethylamine-HCl (VII), m. 140-2° 29%. Diethyl(2-benzoyl)ethylamine-HCl (VIII), m. 108-10°, 45%; steam distillation gives Ph vinyl ketone, b<sub>18</sub> 114-16°. Methylbis(2-benzoyl)ethylamine (IX), m. 140-1°, 34%; this results in 61% yield from Ph vinyl ketone and MeNH<sub>2</sub> in EtOH, and in 4.7-g. yield from 8.8 g. PhAc, 3 g. (HCHO)<sub>x</sub> and 8 g. of methylacetamide-0.5HCl (m. 87-9°) in 10 cc. absolute EtOH on heating on a steam bath for 45 min. Dicyclohexylamine-HCl does not condense with HCHO and PhAc.

IT 2538-50-3, Propiophenone,  $\beta$ -methylamino-, -HCl  
(preparation of)

RN 2538-50-3 HCAPLUS

CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)

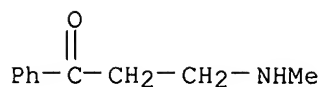


● HCl

L57 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1922:14367 HCAPLUS  
DN 16:14367  
OREF 16:2497i,2498a-e  
TI Synthesis of  $\beta$ -keto bases from acetophenone, formaldehyde and amine salts  
AU Mannich, C.; Heilner, G.  
SO Ber. (1922), 55B, 356-65  
DT Journal  
LA Unavailable  
OS CASREACT 16:14367  
GI For diagram(s), see printed CA Issue.  
AB cf. C. A. 15, 86 l. From 40 g. PhCOMe, 10 g. paraform and 27.5 g. NHMe<sub>2</sub>.HCl boiled in alc. is obtained 42 g. of the hydrochloride (A), leaflets from alc., needles from Me<sub>2</sub>CO, m. 156°, of  $\omega$ -dimethylaminopropiophenone, b<sub>14</sub> 110-2°; oxime, tables from dilute alc., m. 108°. A (2.2 g.) decolorizes 8.8 g. KMnO<sub>4</sub>, yielding CO<sub>2</sub>, BzOH and NHMe<sub>2</sub>. Steam decomps. A into PhCOCH:CH<sub>2</sub> and NHMe<sub>2</sub>.HCl. Hydrogenation of A in H<sub>2</sub>O with palladinized charcoal generally gave quant. the hydrochloride, leaflets from Me<sub>2</sub>CO, m. 135-6° of I-phenyl-3,3-dimethylamino-1-propanol (B), oil of a basic odor; benzoate, b<sub>15</sub> 130-60° (hydrochloride, m. 170°). In one case the reduction of A proceeded beyond the alc. stage, giving a mixture of bases b<sub>15</sub> 80-130°, separated by benzylation by the Schotten-Baumann method into 2 fractions b<sub>15</sub> 80-100° and 100-80°; distillation of the 1st fraction under atmospheric pressure yielded PhCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>, b. 215-20° (methiodide, m. 175.5°; picrate, m. 103°; chloroplatinate, m. 151°). A and activated Al in Et<sub>2</sub>O gently warmed several hrs. with gradual addition of H<sub>2</sub>O yielded, besides a little B, chiefly 2 isomeric 1,6-bis[dimethylamino]-3,4-diphenylhexanediols (dl and meso-forms):  $\alpha$ , m. 146°, and  $\beta$ , sinters about 100°, m. 107°.  $\alpha, \alpha'$ -Bis[phenylacylomethyl]methylamine (methylbis- $[\beta$ -benzoyl ethyl]amine) (C), rodlets or needles, m. 142°, is obtained as the hydrochloride (20.5 g.), needles from alc., m. 162°, from 48 g. PhCOMe, 12 g. paraform and 14.8 g. NH<sub>2</sub>Me.HCl; the mother liquor contains a small amount of  $\omega$ -methylaminopropiophenone hydrochloride (D); best prepared by distilling the preceding salt with steam, whereby PhCOCH:CH<sub>2</sub> is also formed; D seps. from Me<sub>2</sub>CO in leaflets, m. 139-41°; it can also be obtained in 7 g. yield from 12 g. PhCOMe, 7 g. NH<sub>2</sub>Me.HCl and 3 g. paraform boiled a short time in 15 cc. alc., filtered, freed from alc. by evaporation, stirred with Et<sub>2</sub>O (which removes 5.8 g. unchanged PhCOMe) and distilled with steam. C (10 g.), reduced in Et<sub>2</sub>O with activated Al, gives 1.2 g. of a compound separating from alc. in leaflets, m. 205°, and 2 g. of an isomer, fine needles from Me<sub>2</sub>CO, sinters about 170°, m. around 180°; the compds. are probably dl- and meso-forms of the cyclic pinacol HOCPh.CH<sub>2</sub>.CH<sub>2</sub> NMe. HOCPh.CH<sub>2</sub>.CH<sub>2</sub>  
IT 2538-50-3, Propiophenone,  $\beta$ -methylamino-, hydrochloride (preparation of)  
RN 2538-50-3 HCAPLUS  
CN 1-Propanone, 3-(methylamino)-1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)





● HCl

=> => fil reg

FILE 'REGISTRY' ENTERED AT 09:26:55 ON 23 MAY 2006

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*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005. A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
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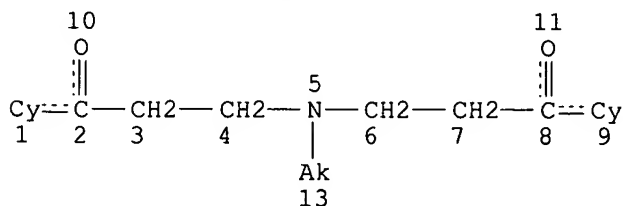
Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que 170

L68 STR



## NODE ATTRIBUTES:

CONNECT IS M1 RC AT 1  
CONNECT IS M1 RC AT 9  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 12

## STEREO ATTRIBUTES: NONE

L70 68 SEA FILE=REGISTRY CSS FUL L68

100.0% PROCESSED 306517 ITERATIONS

68 ANSWERS

SEARCH TIME: 00.00.08

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L70 68 S L68 CSS FUL  
SAV TEMP L70 SHA525D/A

FILE 'HCAPLUS' ENTERED AT 09:26:11 ON 23 MAY 2006

L71 6 S L70 AND L59  
L72 3 S L63 AND L71  
L73 5 S L62,L72 AND L58-L65,L71,L72

FILE 'REGISTRY' ENTERED AT 09:26:55 ON 23 MAY 2006

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 09:27:04 ON 23 MAY 2006

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FILE COVERS 1907 - 23 May 2006 VOL 144 ISS 22

FILE LAST UPDATED: 22 May 2006 (20060522/ED)

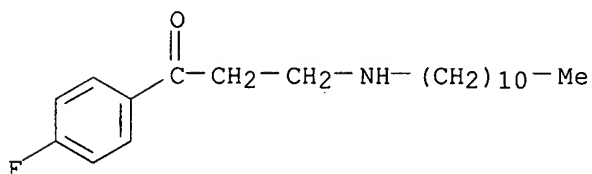
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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 173 bib abs hitstr retable tot

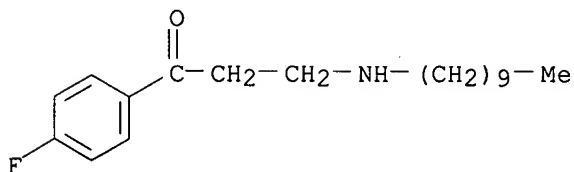
L73 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:101592 HCAPLUS  
 DN 118:101592  
 TI Antiinflammatory phospholipase-A2 inhibitors. II. Design, synthesis and structure-activity relationship.  
 AU Wilkerson, W.; DeLucca, I.; Galbraith, W.; Kerr, J.  
 CS DuPont Merck Pharm. Co., Wilmington, DE, 19880-0353, USA  
 SO European Journal of Medicinal Chemistry (1992), 27(6), 595-610  
 CODEN: EJMCA5; ISSN: 0223-5234  
 DT Journal  
 LA English  
 AB The design and synthesis of a novel series, RX(CH<sub>2</sub>)<sub>n</sub>C(Y)R<sub>1</sub> (R = dodecyl, undecyl, tridecyl, hexyl, heptyl, octyl, 1-, 2-naphthylethyl, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-pyridyl, dehydroabietyl, etc.; X = NH, NEt, S, CH<sub>2</sub>, n = 2, 3, Y = H, OH, H, NH, O, MeON, R<sub>1</sub> = H, Me, hexyl, 4-FC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>, 4-MeSC<sub>6</sub>H<sub>4</sub>, etc), of phospholipase-A2 (PLA2) inhibitors with antiinflammatory activity was based on a systematic structure-activity relationship anal.  
 IT **132427-66-8P 132427-67-9P 145878-92-8P**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **SPN (Synthetic preparation)**; THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)  
 (preparation and antiinflammatory activity of)  
 RN 132427-66-8 HCAPLUS  
 CN 1-Propanone, 1-(4-fluorophenyl)-3-(undecylamino)-, hydrochloride (9CI)  
 (CA INDEX NAME)



● HCl

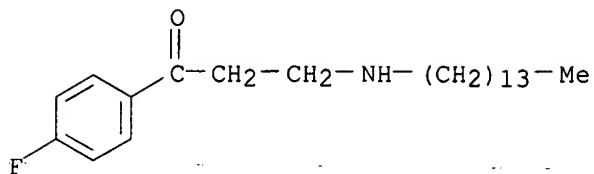
RN 132427-67-9 HCAPLUS  
 CN 1-Propanone, 3-(decylamino)-1-(4-fluorophenyl)-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 145878-92-8 HCAPLUS  
 CN 1-Propanone, 1-(4-fluorophenyl)-3-(tetradecylamino)-, hydrochloride (9CI)

(CA INDEX NAME)



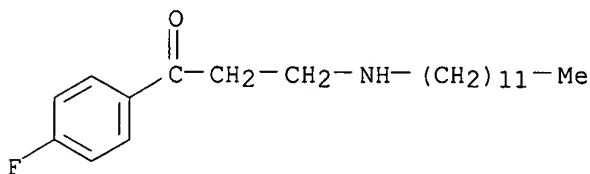
● HCl

IT 132427-58-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation, reduction or oximation, and antiinflammatory activity of)

RN 132427-58-8 HCAPLUS

CN 1-Propanone, 3-(dodecylamino)-1-(4-fluorophenyl)-, hydrochloride (9CI)  
(CA INDEX NAME)

● HCl

L73 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:6747 HCAPLUS

DN 118:6747

TI Benzyl alcohol phospholipase A2 inhibitors

IN Wilkerson, Wendell W.

PA Du Pont Merck Pharmaceutical Co., USA

SO U.S., 15 pp. Cont.-in-part of U.S. Ser. No. 126,617, abandoned.

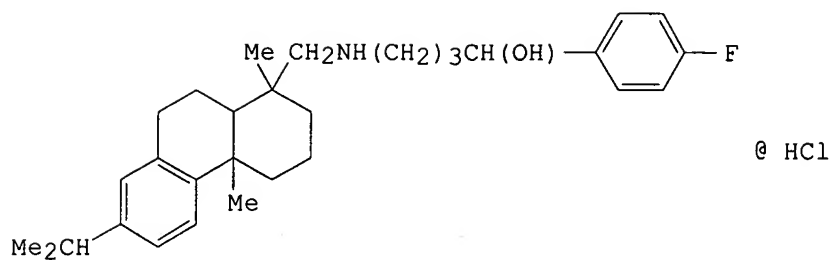
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5124334	A	19920623	US 1989-387319	19890728 <--
PRAI	US 1987-126617	B2	19871130	<--	
OS	MARPAT 118:6747				
GI					



AB The present invention consists of title compds.  $RX(CH_2)_nCH(OH)C_6H_4Z$  ( $Z = H, F, Cl, Br, OR_1, S(O)mR_1$ ;  $R_1 = H, Me, Et, m = 0, 1, 2$ ;  $n = 2, 3$ ;  $X = NH, O$ ;  $R = C_7-25$  alkyl, pyridyl, benzhydryl, phenyl(4-pyridyl)methyl,  $C_7-25$  alkaryl, substituted alkaryl where the substitution is on the aromatic moiety and is  $F, Cl, Br, OR_3, S(O)rR_3, Cl-10$  alkyl,  $R_3 = Me, Et, r = 0, 1, 2$ ; provided that when  $X = O, n = 3$ ), a pharmaceutically acceptable salt, pharmaceutical compns. containing them, and methods of treating phospholipase A2-mediated conditions in mammals by administration of a therapeutically effective amount of such a benzyl alc. phospholipase inhibitors. The title compds. are useful as inflammation inhibitors. Thus, a mixture of 4-chloro-4'-fluorobutyrophenone-2,2-dimethylpropylene ketal, dehydroabietylamine,  $K_2CO_3$ , and KI in DMF was stirred at reflux for 24 h and concentrated to give an oil which was treated with concentrated HCl in MeOH and then 2 N NaOH followed by 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H. The resulting amino ketone was reduced with  $NaBH_4$  in 2:1 THF/isopropanol and converted to the HCl salt to give 76% [[dimethyloctahydropropylphenanthrenyl]methylamino]propyl]fluorobenzenemethanol hydrochloride I. Application of I to the ears of mice reduced tetradecanoyl phorbol acetate-induce swelling by 57%.

IT 143667-19-0 143667-20-3 143667-21-4

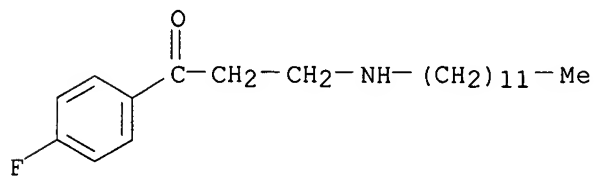
143667-22-5 143667-27-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in synthesis of benzyl alc. phospholipase A2 inhibitors)

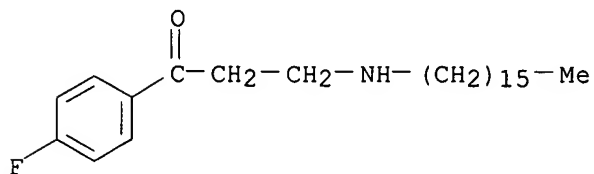
RN 143667-19-0 HCAPLUS

CN 1-Propanone, 3-(dodecylamino)-1-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



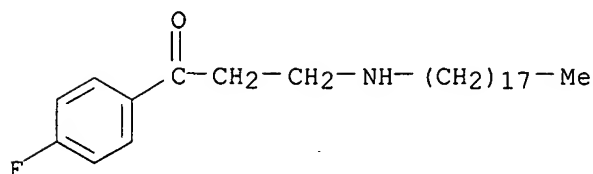
RN 143667-20-3 HCAPLUS

CN 1-Propanone, 1-(4-fluorophenyl)-3-(hexadecylamino)- (9CI) (CA INDEX NAME)



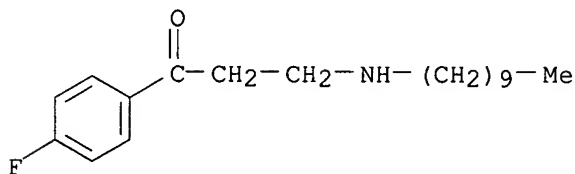
RN 143667-21-4 HCAPLUS

CN 1-Propanone, 1-(4-fluorophenyl)-3-(octadecylamino)- (9CI) (CA INDEX NAME)



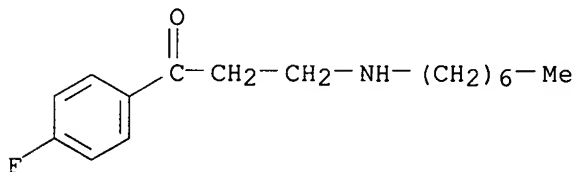
RN 143667-22-5 HCAPLUS

CN 1-Propanone, 3-(decylamino)-1-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



RN 143667-27-0 HCAPLUS

CN 1-Propanone, 1-(4-fluorophenyl)-3-(heptylamino)- (9CI) (CA INDEX NAME)



L73 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1973:478308 HCAPLUS

DN 79:78308

TI Reaction of aryl vinyl ketones with nucleophilic reagents

AU Stepanovicius, J.; Vaitkevicius, A.; Palubinskas, V.; Dienys, G.

CS Vil'nyus. Gos. Univ., Vilnius, USSR

SO Sin. Izuch. Fiziol. Aktiv. Veshchestv, Mater. Konf. (1971), 93-6

Publisher: Vil'nyus. Gos. Univ., Vilnyus, USSR.

CODEN: 26YYAS

DT Conference

LA Russian

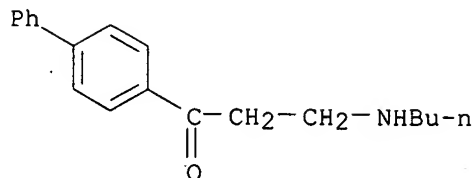
AB Reaction of 4-PhC6H4COCH:CH2 with HO- and PhO- gave 58% 4-PhC6H4COCH2CH2OH and 65% 4-PhC6H4CO(CH2)2OPh, resp. Reaction of CH2:CHCOR(I; R = 4-PhC6H4, 4-MeC6H4, 4-BrC6H4) with S2- gave 50-88% [RCO(CH2)2]2S. When the nucleophile was R1S- (R1 = 4-MeC6H4, Bu) 44-79% RCO(CH2)2SR1 (R = 4-MeOC6H4, 4-MeC6H4, 4-PhC6H4, Ph, 4-BrC6H4) were obtained. Reaction of BuNH2 with I (R = 4-PhC6H4) gave 64% 4-PhC6H4CO(CH2)2NHBu; addition of I gave 53% [4-PhC6H4CO(CH2)2]2NBu. Similar results were obtained with NH3 and R2NHNH2 (R2 = H, Me, Ph, 2,4-(O2N)2C6H3, CONH2).

IT 42537-35-9P 42575-21-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

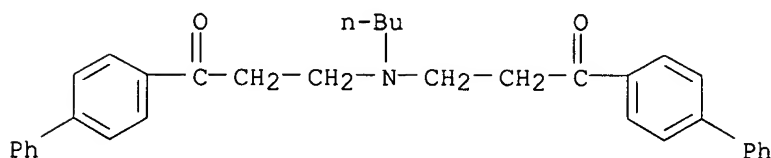
RN 42537-35-9 HCAPLUS

CN 1-Propanone, 1-[1,1'-biphenyl]-4-yl-3-(butylamino)- (9CI) (CA INDEX NAME)



RN 42575-21-3 HCAPLUS

CN 1-Propanone, 3,3'-(butylimino)bis[1-[1,1'-biphenyl]-4-yl]- (9CI) (CA INDEX NAME)



L73 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1968:419000 HCAPLUS

DN 69:19000

TI The synthesis and pharmacological study of acyl derivatives of iminodibenzyl

AU Bagal, V. N.; Kvitko, I. Ya.; Lapin, I. P.; Porai-Koshits, B. A.; Favorskii, O. V.

CS Leningr. Tekhnol. Inst. im. Lensovet, Leningrad, USSR

SO Khimiko-Farmatsevticheskii Zhurnal (1967), 1(12), 21-6

CODEN: KHFZAN; ISSN: 0023-1134

DT Journal

LA Russian

GI For diagram(s), see printed CA Issue.

AB The treatment of 10,11-dihydro-5H-dibenz[b,f]azepine (I) with halopropionyl chlorides and subsequently with primary or secondary amines, afforded II and IIa, resp. Treating 2 g. I and 1.3 g. freshly distilled ClCH<sub>2</sub>CH<sub>2</sub>COCl in anhydrous C<sub>6</sub>H<sub>6</sub> gave 2.37 g. N-(β-chloropropionyl)-10,11-dihydro-5H-dibenz[b,f]azepine (III), m. 105-6° (EtOH). Similarly, 7.5 g. I and 7.4 g. BrCH<sub>2</sub>CHMeCOCl gave 11.8 g. N-(β-bromo-α-methylpropionyl)-10,11-dihydro-5H-dibenz[b,f]azepine, m. 118.5° (cyclohexane). A solution of 2.85 g. III in 70 ml. anhydrous PhMe was treated with 2.02 g. iso-Pr<sub>2</sub>NH, the mixture refluxed 18 hrs., the solid removed, and the filtrate evaporated to give an oily residue which was dissolved in anhydrous Et<sub>2</sub>O and treated with HCl-saturated Et<sub>2</sub>O to give 1.7 g.

II

(R = H, R' = R'' = iso-Pr, X = HCl) (IIb), m. 187-8° (iso-PrOH). Analogously were prepared the following II (R, R', R'', X, m.p., and % yield given): H, H, Me, HCl, 167° (decomposition) (EtOH), 20; H, Me, Me, HCl, 165-7° (EtOH-Et<sub>2</sub>O), 87; H, Et, HCl, 168-70° (EtOH-Et<sub>2</sub>O), 40; H, Bu, Bu, (CO<sub>2</sub>H)<sub>2</sub>, 126-7° (EtOH-Et<sub>2</sub>O), 54.5; H, Me, Ph, HCl, 172-4° (iso-PrOH), 33; (CH<sub>2</sub>)<sub>2</sub>OH, PhCH<sub>2</sub>, (CO<sub>2</sub>H)<sub>2</sub>, 170-2° (EtOH), 75; Me, Me, Me, HCl, 240-1° (MeOH), 43; Me, Et, Et, HCl, 230-1° (MeOH), 52; H, H, (CH<sub>2</sub>)<sub>2</sub>OCH<sub>2</sub>Ph, -, 101-3°, -. Also prepared were the following IIa (R, R', X, m.p., and % yield given): H,

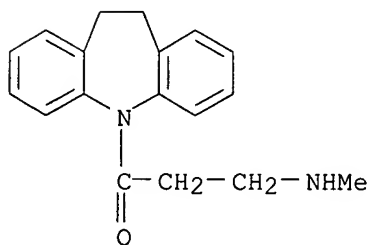
4-morpholinyl, HCl, 205-6° (EtOH), 54.6; H, 1-methyl-4-piperazinyl, HCl, 227-32° (EtOH), 83; H, 1-(β-hydroxyethyl)-4-piperazinyl, 2HCl (IIc), 130° (iso-PrOH), 51; H, 1-piperidinyl, HCl, 158-9° (iso-PrOH), 67.5; Me, 1-piperidinyl, HCl, 248° (iso-PrOH), 50; Me, 4-morpholinyl, HCl, 250-1° (iso-PrOH), 39. A 1:1 mixture of III and N-(β-hydroxyethyl)piperazine gave IV, m. 238-8.5° (MeOH), as opposed to a 1:6 mixture which gave only IIc. A solution of 0.85 g. III in 15 ml. anhydrous C<sub>6</sub>H<sub>6</sub> was treated with 0.75 g. MeNH<sub>2</sub> in 5 ml. C<sub>6</sub>H<sub>6</sub>, the mixture kept 7 days, refluxed 2 hrs., the solid removed, the filtrate worked up as for IIb to give an oily product which was dissolved in an alc. and precipitated with petroleum ether to give 0.5 g. V, m. 137° (decomposition). The reaction of 2.85 g. III and 2.67 g. N-methylpyridone gave 1.25 g. N-acryloyl-10,11-dihydro-5H-dibenz[b,f]azepine, m. 97-8° (iso-PrOH). The compds. exhibited adrenopos., cholinoneg., and antireserpine action in rats and mice.

IT 19055-28-8P 19290-18-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 19055-28-8 HCAPLUS

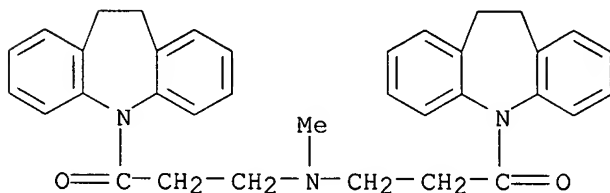
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-5-[3-(methylamino)-1-oxopropyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 19290-18-7 HCAPLUS

CN 5H-Dibenz[b,f]azepine, 5,5'-[(methylimino)bis(ethylenecarbonyl)]bis[10,11-dihydro-, monohydrochloride (8CI) (CA INDEX NAME)



● HCl

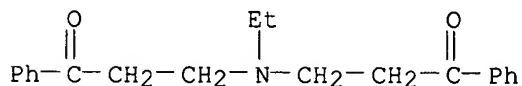
L73 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1967:46298 HCAPLUS

DN 66:46298

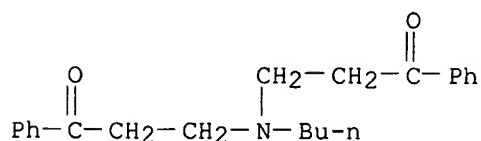


TI Spatial structure and stereochemistry of synthesis of 1-alkyl-4-phenyl-3-benzoyl-4-piperidols  
 AU Unkovskii, B. V.; Mel'nikova, A. A.; Zaitseva, M. G.; Malina, Yu. F.  
 CS M. V. Lomonosov Fine Chem. Tech. Inst., Moscow, USSR  
 SO Zhurnal Organicheskoi Khimii (1966), 2(8), 1501-7  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DT Journal  
 LA Russian  
 GI For diagram(s), see printed CA Issue.  
 AB Cyclization of bis(2-benzoyl-ethyl)alkyl amines in basic medium led to stereospecific formation of but one of two possible geometrical isomers of 1-alkyl-3-benzoyl-4-phenyl-4-piperidols; this one had the cis-configuration and predominant conformation of 3-equatorial-4-axial-disposition of Bz and OH groups, resp., as indicated by examination of the ir spectra. The ketones were prepared previously (Plati and Wenner, (CA 43, 9050b). Heating 47.2 g. AcPh with 12 g. paraformaldehyde and 19.1 g. PrNH<sub>2</sub>.HCl to 85° gave after cooling BzCH<sub>2</sub>CH<sub>2</sub>NHPr.HCl, m. 125-7°, which in aqueous NaOH in 0.5 hr. at room temperature gave 58% 1-propyl-4-phenyl-3-benzoyl-4-piperidol, m. 101-2°. Similar reaction with other RNH<sub>2</sub> gave exclusively RN(CH<sub>2</sub>CH<sub>2</sub>Bz)<sub>2</sub>.HCl which in basic medium cyclized as above. The following were reported: 95% EtN(CH<sub>2</sub>CH<sub>2</sub>Bz)<sub>2</sub>.HCl (I), m. 126-7°; 89% BuN analog of I m. 62-4°; 91.5% PhCH<sub>2</sub>N analog of I, m. 122.5-3.5°; 51% 1-ethyl-4-phenyl-3-benzoyl-4-piperidol (II), m. 99.5-100.5°; 67.5% 1-butyl analog of II, m. 95-6°; 89.5% 1-benzyl analog of II, m. 116.5-17.5°. Ir spectra are shown.  
 IT 13721-12-5P 13721-13-6P 13734-99-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 13721-12-5 HCAPLUS  
 CN 1-Propanone, 3,3'-(ethylimino)bis[1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

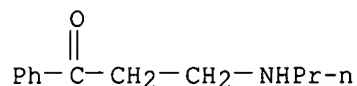
RN 13721-13-6 HCAPLUS  
 CN 1-Propanone, 3,3'-(butylimino)bis[1-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 13734-99-1 HCAPLUS

CN Propiophenone, 3-(propylamino)-, hydrochloride (8CI) (CA INDEX NAME)



● HCl

=> => d his 11-173

(FILE 'HOME' ENTERED AT 08:54:36 ON 23 MAY 2006)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 08:54:46 ON 23 MAY 2006

L1 1 S (WO2003-EP8514 OR DE2002-10240026)/AP,PRN  
E FABIAN/AU  
E FABIAN K/AU  
L2 24 S E3-E5  
E NIESERT/AU  
L3 15 S E7-E9  
E KRALIK/AU  
L4 30 S E33-E35,E42  
E GLUSENKAMP/AU  
L5 6 S E4,E5  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 08:56:37 ON 23 MAY 2006

L6 4 S E1-E4  
L7 2 S L6 NOT (CH2O OR C6H6OS)  
L8 3 S 27152-62-1/CRN  
L9 6 S 667465-15-8/CRN  
L10 3 S L9 NOT COMPD  
L11 8 S L7,L8,L10  
L12 STR  
L13 1 S L12 CSS SAM  
L14 SCR 1597  
L15 8 S L12 AND L14 CSS SAM  
L16 570 S L12 AND L14 CSS FUL  
SAV TEMP L16 SHA525/A  
L17 21 S L16 AND SC4/ES  
L18 15 S L17 AND 1/NR  
L19 6 S L17 NOT L18  
SEL RN 4-6  
L20 3 S L19 NOT E5-E7  
L21 18 S L18,L20  
L22 239 S L16 AND 46.150.18/RID  
L23 169 S L22 AND 1/NR  
L24 STR L12  
L25 10 S L24 CSS SAM SUB=L16  
L26 297 S L24 CSS FUL SUB=L16  
SAV TEMP L26 SHA525A/A  
L27 296 S L26/COM  
L28 19 S L17 AND L27  
L29 1 S L28 NOT L21

L30 18 S L28 NOT L29  
 L31 18 S L21,L30  
 L32 128 S L27 AND 46.150.18/RID  
 L33 112 S L32 AND 1/NR  
 L34 111 S L33 NOT MAN/CI  
 L35 129 S L31,L34  
 L36 15 S L32 NOT L35  
 L37 14 S L36 NOT MAN/CI  
 L38 143 S L35,L37  
 L39 STR L24  
 L40 4 S L39 CSS SAM SUB=L27  
 L41 158 S L39 CSS FUL SUB=L27  
 SAV TEMP L41 SHA525B/A  
 L42 272 S L38,L41  
 SAV TEMP L42 SHA525C/A  
 L43 25 S L26 NOT L42  
 L44 264 S L42 NOT L11

FILE 'HCAOLD' ENTERED AT 09:16:27 ON 23 MAY 2006

L45 3 S L11  
 SEL AN  
 EDIT E8-E10 /AN /OREF

FILE 'HCAPLUS' ENTERED AT 09:16:55 ON 23 MAY 2006

L46 6 S E8-E10  
 L47 3 S L46 NOT (CARLIN ? OR SOKOLOV ? OR GRAFE ?)/AU  
 L48 36 S L11  
 L49 36 S L47,L48  
 L50 29 S L49 AND (PY<=2002 OR PRY<=2002 OR AY<=2002)  
 L51 2 S L49 AND L1-L5  
 L52 2 S L49 AND MERCK?/PA,CS  
 L53 18 S L11(L) PREP+NT/RL  
 L54 12 S L50 AND L53  
 L55 13 S L51,L52,L54  
 L56 16 S L50 NOT L55  
 L57 29 S L55,L56

FILE 'REGISTRY' ENTERED AT 09:19:56 ON 23 MAY 2006

FILE 'HCAPLUS' ENTERED AT 09:20:39 ON 23 MAY 2006

L58 106 S L44  
 L59 101 S L58 AND (PY<=2002 OR PRY<=2002 OR AY<=2002)  
 L60 0 S L58 AND L1-L5  
 L61 2 S L58 AND MERCK?/PA,CS  
 L62 2 S L59 AND L61  
 L63 64 S L44 (L) PREP+NT/RL  
 L64 59 S L59 AND L63  
 L65 60 S L62,L64

FILE 'REGISTRY' ENTERED AT 09:23:33 ON 23 MAY 2006

FILE 'HCAPLUS' ENTERED AT 09:23:36 ON 23 MAY 2006

L66 TRA L65 1- RN : 3115 TERMS

FILE 'REGISTRY' ENTERED AT 09:23:38 ON 23 MAY 2006

L67 3115 SEA L66  
 L68 STR  
 L69 0 S L68 CSS  
 L70 68 S L68 CSS FUL  
 SAV TEMP L70 SHA525D/A

FILE 'HCAPLUS' ENTERED AT 09:26:11 ON 23 MAY 2006

L71           6 S L70 AND L59  
L72           3 S L63 AND L71  
L73           5 S L62,L72 AND L58-L65,L71,L72

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